

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1509.—Vol. XXXIV.

LONDON, SATURDAY, JULY 23, 1864.

{ STAMPED.....SIXPENCE.
UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 22 years.)

Mr. Crofts transacts business in the way of PURCHASE or SALE, in every description of stocks, but particularly in BRITISH MINES, in no case departing from the position of a broker, at net prices. All orders meet with the utmost punctuality and accuracy, and advice given as to the nature and eligibility of INVESTMENTS, when required. The tendency of the market in a select number of shares being to advance, buyers are recommended not to allow an excellent opportunity to escape to make large profits. A list of the most eligible shares for investment will be supplied by Mr. Crofts on application.

* Mr. Crofts recommends the purchase of General Omnibus shares.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE at net prices:—5 Basset and Grylla, £9; 50 Crebora, 46s.; 10 East Cam Brea, £7½; 50 East Providence, £4; 20 Great South Toigus, £3; 20 Great Wheal Busy, £2¼; 5 Great Wheal Fortune, £14; 50 Gurry, 15s.; 50 East Jane, 32s.; 10 Marke Valley, £2½; 10 North Basset, 30s.; 50 New Birch Tor and Vithier, £3; 25 New Wheal Rose, 12s.; 20 North Trekerby, £2½; 50 North Jane, 3s. 9d.; 50 North Devon (Limited), 47s. 6d.; 20 Pendean Consols, £4½; 35 St. Day United, 31s. 6d.; 5 Sthney and Carmel, £6; 10 Kitty (St. Agnes), £5½.

PETER WATSON'S WEEKLY MINING CIRCULAR AND SHARE LIST, published every Friday, price 6d. each copy, forwarded on application. This Circular contains weekly important information with respect to all the principal dividend and progressive mines in Devon and Cornwall.

STOCK AND SHAREDEALER.—MR. PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 79, OLD BROAD STREET, LONDON, E.C. TELEGRAPHIC MESSAGES TO BUY or SELL Railway, Bank, Mine, and other Shares and Stocks, punctually attended to on commission, or at net prices for cash, or for fortnightly settlements, with advice as to purchases or sales.

Nineteen years' experience.

(Two in Cornwall and Seventeen in London.)
Bankers: Union Bank of London, and the Alliance Bank of London and Liverpool. Every information can be obtained on personal application or by letter, as to purchases and sales of mine and other shares, and the best investment for capital. From the close proximity of his Offices to the Stock Exchange, as well as the Mining Exchange, PETER WATSON is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.—July 22, 1864.

MR. LEAN, STOCK AND SHAREDEALER, 11, ROYAL EXCHANGE, LONDON, E.C.

Shares bought and sold on the usual commission. Telegraphic messages promptly attended to. Mines inspected, and reliable information given. Established 15 years.

Mr. LEAN recommends the purchase of Great Laxey, Great South Chiverton, North Miners, and South St. Ives shares as safe and profitable investments, at quoted prices.

THOMAS HAMILTON (late of Truro), STOCK AND SHAREBROKER, 4, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C.

Mine shares bought and sold on the usual commission.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.

Commission, 1½ per cent. on all transactions.

RICHARD CLIFT, MINE SHAREDEALER, late of Redruth, now 48, THREADNEEDLE STREET, LONDON, where all letters are to be addressed.

JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C. SHARES IN MINES BOUGHT and SOLD on commission, at 1¼ per cent., for immediate cash. Bankers: London and Westminster, Lothbury.

MR. WALTER TREGELLAS, STOCK AND SHAREBROKER, 12, St. Michael's-alley, Cornhill, E.C., has REMOVED to 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

WILLIAM BARTLETT, STOCK AND SHAREBROKER, MINING EXCHANGE, and No. 2, BUCKLESBURY, LONDON, E.C.

OFFERS WANTED FOR—20 Rosewarne United, 100 Long Rake, 20 North Phoenix, 10 Tolvadden, 100 Worvas Downs.

Advice given as to the safest and best paying investments.

Bankers: Alliance Bank.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREBROKERS, 2, ADAM'S COURT, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C. (ESTABLISHED ELEVEN YEARS.)

TRANSACT BUSINESS IN BRITISH AND FOREIGN MINING SHARES AND OTHER SECURITIES at lowest prices, net or on commission, but not being DEALERS only execute orders confined to them.

Telegraphic messages to buy or sell shares of every description promptly executed for immediate cash, or for fortnightly settlements.

Commission, 1½ per cent. on all transactions.

July 22, 1864. Bankers: London and Westminster, Lothbury.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has FOR SALE:

Great No. Downs, £5½; Rosewall Hill & Ransom, £2¼; Chiverton, £2½; West Chiverton, £24; Chiverton Valley, £2½; West Wheal Vor, £22½; Marke Valley, £2½; Wheal Seton, £22½; East Grenville, £2½; North Down, 35s.; Wheal Grenville, £27½; East Rosewarne, £3 9s. 9d.; North Robert, 6s. 6d.; North Trekerby, £2; East Lovell, £14½; Sthney Metal, £3; East Caradon, £28½; Wentworth, £18½.

And is a BUYER of—East Caradon, £28½; East Grenville, £5 8s. 9d.; East Basset, £4½; Bedford United, £2¼; North Basset, £13½; East Cam Brea, £7½; Nanglies, £23½; New Birch Tor, £2½; East Rosewarne, £3 9s. 9d.; East Caradon, £28½; Tincroft, £17½; Trelawny, £18½; Great Devon & Bedford, 2. Rosewarne should be consulted respecting the leading mines in Devon & Cornwall.

Bankers: Bank of London.

INVESTMENTS FOR CAPITAL. Paying 10 to 20 per cent. per annum in bi-monthly and quarterly dividends.

SHARP'S RAILWAY, BANKING, MINING, AND INVESTMENT CIRCULAR (Gratis and post free)

Should be CONSULTED by the PUBLIC before INVESTING. It contains reliable information and advice to capitalists. Reports on Mines, Railways, Banks, Insurance, Dock, Loans, and all Financial Companies, &c., Record of Market Prices, and is the only SAFE GUIDE for the Investment of Capital.

HENRY GOULD SHARP, 32, FOLKLY, LONDON, E.C. Established 12 years.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., pays particular attention to British Lead, Copper, and Tin Mines, for which he solicits orders to sell or buy, at net prices.

FOR SALE:—20 East Seton, 4s. 9d.; 10 Central Miners, 38s.; 20 Havan (Limited), fully paid-up, £5.

BUYER of Central Miners, Chiverton, and Billins. State number and lowest price.

GEORGE RICE, SHAREBROKER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, (21 years' experience), has SPECIAL BUSINESS, as BUYER or SELLER, for cash or account, in the principal market mines at fair market prices.

LAST WHEAL GRENVILLE.—G. RICE can give the best advice when to buy or sell. Money advanced on mining shares.

Bankers: Bank of London.

MR. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 17 years), has FOR SALE at net prices:—125 Santa Barbara, 9s. 3d.; 40 Okei Tor, £34; 25 East Grenville, 15s.; 1 Wheal Seton, £22½; 2 East Basset, £66½; 30 North Croft, £4; 20 East Devon, 12s.; 20 Hington Down, £4; 50 Wheal Crebora; 10 East Caradon, £28; 10 Great Wheal Vor, £28½; 50 North Trekerby; 2 West Sharp Tor, £30; 150 Vale of Towy; 15 Wheal Grenville, £17½; 25 East Russell, £4½; 2 Miners; 5 St. John del Rey; 50 Cape Copper, £11½; 50 Nova Scotia; 25 Wheal Hope; 100 Rosa Grande, 8s. 9d.; 100 Redmoor, 4s.; 50 Sthney Wheel Metal, £3; 20 Don Pedro; 150 Wheal Hartley, 11s. 9d.; 50 North Basset; 25 East Rosewarne, £3 9s. 9d.; 200 Anglo-Brasillan; 20 United Mexican; 100 Merilyn, 3s.; 5 East Lovell, £14½; 3 Clifford, £33½; 1 New Seton; 25 Marke Valley; 2 South Frances; 2 West Damsel, £27½; 3 Trelawny, £19½; 100 Vallancas.

G E O R G E M O O R E, 1, CROWN COURT, THREADNEEDLE STREET.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

100 Anglo-Brasillan, 6s. 6d. 100 Garreg, £20. 100 Santa Barbara, 9s. 3d. 20 Redol-Aur (offer). 20 Great South Chiverton. 10 Sthney Metal, £3 9s. 9d. 10 Billins, £15. 20 Great Grylla. 50 South Hington, 32s. 6d. 5 Bryn Gwlog, £26. 50 Golch Hill, £3. 20 Silver Vein (30s. paid), 15s. 1 Buller, £26. 25 Grylla Wheal Florence (an offer wanted). 5 Sthney Carmel, £5½; 5 Havan. 20 St. Day United, 29s. 20 South Grenville, 7s. 6d. 50 Smith, Knight's Co. 20 Hington Down. 5 St. John del Rey, £26. 50 Stray Park, £29 18s. 9d. 20 Carn Camborne, 20s. 50 Miners Bottom, £26½. 30 St. David's Gold, 10s. 6d. 5 Clifford Amalg., £33½. 10 Hallenbeagle, £4½. 5 Tincroft, £17 5s. 9d. 2 Cwm Erhn, £29½. 5 Havan. 50 South Croft, £13½. 1 Carn Brea, £26. 20 Hington Down. 50 Nant-y-lago, 4s. 20 So. Condurrow, 16s. 3d. 20 Crane. 5 Marke Valley, £5½. 1 Mary Ann, £14½. 20 St. Just Consols. 70 Crever Abraham. 20 Miners Bottom, £26½. 1 Nanglies, £27½. 10 Chiverton Val., £23½. 20 North Trekerby, 38s. 9d. 100 New So. Caradon, 3s. 9d. 20 North Down, 30s. 20 New Wheal Lovell. 50 Vale of Towy, 5s. 9d. 10 Copper Hill, £12. 50 Nant-y-lago, 4s. 50 North Miners, 5s. 50 New Martha, 23s. 6d. 5 North Shepherds. 50 North Croft, £3 17s. 6d. 50 North Chiverton, £2. 10 East Basset. 50 Port Phillip, 22s. 50 Furne Hill Wood, 5s. 50 Prince of Wales, 5s. 6d. 50 Providence, £40½. 5 North Buller. 20 No. Basset, £1 13s. 9d. 50 New Birch Tor. 50 Nova Scotia. 20 Prosper United, £4½. 5 Polbrean, £11. 50 East Clogau. 50 Port Phillip, 22s. 50 Prince of Wales, 5s. 6d. 1 Providence, £40½. 50 Quebrada (£5 10s. paid), 20 ditto (fully pd), £26½. 50 Redmoor, 4s. 3d. 20 Rosewarne United, 18s. 20 Rose. Hill & Ran., £3½. 50 Roaring Water (£2 pd.), 50s. 50 Rinkon East Rose, 35s. 100 Vale of Towy, 5s.; 20 Chiverton, 30 Tolvadden, 5 East Basset, £68; and 20 North Pool at 20s.

Mr. HERRON strongly recommends the immediate purchase of East Grenville, Hington Down, Cwm Erhn, and Clifford Amalgamated shares.

2, Adam's-court, Old Broad-street, July 22, 1864.

MESSRS. VIVIAN AND REYNOLDS, 37, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS OF MINES, COMMISSION, and GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, and EVERY OTHER DESCRIPTION of STOCK.

Commission on share transactions 1½ per cent. on £100 and above, and 2½ per cent. on less sums.

MR. EDWARD COOKE, MINING SHAREBROKER, 75, OLD BROAD STREET, LONDON, E.C. Reliable information given on application, relative to the merits of mines, either for speculation or investment.

July 22, 1864. Bankers: Alliance Bank, Lothbury.

MR. GEORGE BATTERS strongly recommends his friends to buy West Chiverton, Chiverton, Herodsfoot, South Caradon, Devon Great Consols, Great Wheal Vor, Chiverton Valley, Prosper United, Wentworth Consols, and Sthney Wheal Metal for investment. These shares will pay good interest for money at present quotations.

West Chiverton can now be bought at £65, and Chiverton at £8½. The shares have been knocked down from force of circumstances and by unfair means. The prospects at the respective mines were never better. I strongly recommend my friends to buy immediately. A rise to £100 in West and to £20 in Chiverton is certain.

76, Old Broad-street, London, E.C.

MR. J. W. GILBERT, MINE SHAREBROKER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON.

JOSEPH GREGORY, STOCK AND SHAREBROKER, 2, HATTON COURT, THREADNEEDLE STREET, LONDON, E.C.

Commission on purchase and sale of mining shares, 1½ per cent. Bankers: City Bank.

W I L L I A M W A R D, 29, THREADNEEDLE STREET, LONDON, E.C.

MR. E. GOMPERTS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.

BUSINESS TRANSACTED IN BRITISH AND FOREIGN STOCKS AND SHARES. Terms, 1½ per cent. Bankers: London and Westminster Bank.

MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.

FOR SALE:—100 Bryntal. 5 Great Laxey, £17. 2 Trelawny. 100 Redol-Aur, 11s. 10 North Trekerby, £2½. 10 So. Condurrow, 17s. 6d. 20 East Rosewarne, £3 3 9 25 North Shepherds, £3½. 10 Great Vor, £29½. 15 East Lovell, £15. 50 Crebora, 44s. 6d. 50 St. Just United, £33½. 15 Great Fortune, £14. 20 Wh. Grenville, £7½. 15 Pendean.

BUYER of New Birch Tor and Vithier.

Mr. SANDY earnestly recommends his friends and the public to take advantage of the present depressed state of the Mining Market, feeling confident that there are many opportunities for investment of capital, where in a very short time great profits might be realised. A selected list forwarded on application.

Current Daily Price List may be obtained as usual.

MATTHEW GREENE, MINING SHAREDEALER, 27, AUSTINFRIARS, LONDON, E.C., strongly advises the immediate purchase of Great Laxey and East Rosewarne shares, at present prices; an important rise in these shares is certain.

Mr. GREENE's next monthly Mining Circular will be ready the first Monday in August. Applications for the same should be made at once, enclosing stamped addressed envelope.

Shares bought and sold. Commission, 1½ per cent.

MR. THOMAS CARTHEN, MINING OFFICES, 17A, SISE LANE, BUCKLESBURY, LONDON, E.C.

Reliable information respecting mining generally can be obtained by applying as above. Bankers: Roberts, Lubbock, and Co., 15, Lombard-street, London.

JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C.

J. HUME's Circular for July is now ready. 6d. per copy; 6s. per annum.

Mr. HUME can recommend two or three mines, now at their lowest, but which are likely to rise several hundred per cent. in a few months.

Commission 1½ per cent.

Bankers: London Joint-Stock Bank.

MR. J. P. ENDEAN, STOCK AND SHAREBROKER, 1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.

Having had 25 years' experience in the mining districts of Devon and Cornwall, and three in the London market, with daily information of important changes from qualified agents, also the most authentic reports relating to other investments, he is in a position to afford the earliest information to his clients, and to direct capitalists whether to buy or sell in mines, railways, or other securities.

Investors should apply to him for reliable information relative to the Chiverton Mines, also the Camborne and Higon districts.

A carefully selected list of sound progressive and dividend shares (certain to give a large percentage immediately) forwarded on receipt of 5s. in stamps.

Orders and telegrams receive immediate attention.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING, RAILWAY, and OTHER SHARES.

His monthly "Circular" for April contains a selected list of Cornish and other mines. Forwarded on receipt of six postage stamps.

38, Dowgate-hill Chambers, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 2, PINNER'S COURT, OLD BROAD STREET, LONDON.

MR. FRANCIS G. LANE, No. 2, ROYAL EXCHANGE, LONDON, E.C., has the following SHARES FOR SALE:—

10 Trevenen and Tremen- 100 Vale of Towy, 6s. 25 East Jane, 36s. heere, £17½. 35 Silver Vein. 25 North Downs, 31s. 6d. 200 W. Wh. Trevelyan, 1s. 100 St. David's Gold, 9s. 6d. 20 Bedol-Aur, 7s. 6d. 100 Trumpet United, 1s. 50 Havan, £3½. 20 East Russell, £4½. 10 Central Miners, 38s. 10 Great Laxey, £17½. 50 Great Devon & Bedford, 30 Quebrada (£5 10s. paid), 25 North Shepherds, £3½. ¼ premium. 50 Chiverton Moor.

Parties of respectability can have transfers registered into their names previous to payment. Bankers: London and County Bank.

MR. F. W. MANSELL, MINING SHAREBROKER, 75, OLD BROAD STREET, LONDON, E.C.

MR. JOHN R. PIKE, GENERAL SHAREDEALER, OFFERS his SERVICES to INVESTORS. 3, PINNER'S COURT, OLD BROAD STREET, LONDON.

MR. WM. BIRDSEY, MINE AND SHAREBROKER, No. 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN B. REYNOLDS has REMOVED from 37, Old Broad-street, to 54, THREADNEEDLE STREET.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. H. WADDINGTON, MINING AND SHAREBROKER, 20, THROGMORTON STREET, LONDON, E.C.

Shares in railways, mines, &c., bought and sold on the usual commission.

KING AND CO., MINING AND SHAREBROKERS, ELDON CHAMBERS, LIVERPOOL.

MESSRS. ROBERTS AND CO., 31, NEW BROAD STREET, E.C., have selected a LIST of DIVIDEND and PROGRESSIVE MINES which they can strongly recommend. Also, Bank, Railway, and other shares. Commission, 1½ per cent.

Office of ROBERTS and Co.'s "Price List, and Stock and Share Reporter," price 3d.

MESSRS. ROBERTS AND CO.'S PRICE LIST AND STOCK AND SHARE REPORTER contains Reports of Mines, Notices of Meetings, Plans of Mining Districts (showing the position of progressive mines in reference to those returning large profits), Railway Meetings, Joint-Stock Companies Intelligence, and Advice as to the Purchase and Sale of Stock.—31, New Broad-street, London, E.C.

SHARES WANTED IN THE FOLLOWING MINES:— Kitty (Leland). Rosewarne United. Ding Dong. Gonnemena. Trencrom. Camborne Vein. Grambler & St. Aubyn. West Stray Park. Bryntal. South Frances. West Caradon. Crowlwm.

State number and lowest price. HUBERT BARNES RYE, Mining Offices, 77, Old Broad-street, London, July 22, 1864.

NOTICE OF REMOVAL. THE CAMBRIAN CONSOLIDATED GOLD MINES COMPANY (LIMITED). THE VALLANZASCA GOLD MINING COMPANY (LIMITED). THE VAL TOPPA GOLD MINING COMPANY (LIMITED). THE VICTOR EMANUEL MINING COMPANY (LIMITED). THE COED MADOG SLATE COMPANY (LIMITED).

THE OFFICES of the ABOVE COMPANIES are now REMOVED to No. 9A, GREAT ST. HELEN'S, BISHOPSGATE STREET. J. C. GOODMAN, Sec.

WHEAL CARADON MINE.—SHARES in this promising MINE FOR SALE, all calls paid up.—Apply by letter to "Box 216," Post-office, Bristol.

VICTOR EMANUEL MINING COMPANY.—A Gentleman has THREE HUNDRED SHARES FOR SALE.—Apply to Mr. Brooks, No. 7, Goldsmith-street, London, E.C.

FOR SALE, FORTY NORTH DEVON SILVER-LEAD SHARES, price 38s. each.—Apply to "N. D. L." care of Mr. C. Richardson, Abington.

TO BE SOLD, ONE HUNDRED PAID-UP SHARES in the NORTH DEVON SILVER-LEAD MINING COMPANY (LIMITED).—Apply to "A. B.," care of T. Cave, Esq., 118, St. Aldates, Oxford.

GREAT RETALLACK MINE.—SHAREHOLDERS are EARNESTLY REQUESTED to ATTEND the MEETING to be HELD on THURSDAY, the 28th inst., in order that the position and prospects of the mine may be thoroughly discussed, and such steps taken as will best serve the interests of those who pay their calls.

TO CAPITALISTS.—WANTED, a PARTNER, with about £4000, in a FIRST-CLASS COLLIERY. The return would be most advantageous. The cost of raising the coal, including royalty, expenses of management, interest on capital, &c., would be not more than 4s. 6d. to 5s. per ton, whereas 9s. 6d. to 10s. per ton is the average price on the pit brow.—Address, "W. 15," Post-office, Liverpool.

SITUATION WANTED, by a PRACTICAL MINE AGENT, aged 32, who has been employed for some years as underground agent, and is competent to keep the accounts of a mine. Testimonials as to character and ability can be produced.—For further particulars, apply to "N. B.," 7, Albert-street, St. George's-road, Camberwell.

MR. E. TREGILGAS, MINE AGENT, MOLD, FLINTSHIRE, can advise capitalists, especially in this locality, after 30 years' experience among the Welsh mines.

ISAAC FRANCIS, NANT, WREXHAM, a dresser of 30 years' experience, is OPEN to INSPECT ANY DRESSING PLACE on moderate terms. Mr. FRANCIS can introduce PLANS of IMPROVEMENTS that will SAVE THIRTY PER CENT. COST in certain departments of any dressing floors.

ELFORD, WILLIAMS, AND CO., COPPER ORE WHARFINGERS, METAL AND GENERAL COMMISSION AGENTS, SWANSEA.

WANTED TO PURCHASE, ZINC DROSS or ASHES, containing 50 per cent. of zinc and upwards.—Apply, stating quantity and price, to ELFORD, WILLIAMS, and Co., copper ore wharfing and general commission agents, Swansea.

IRON PYBITES.—PERSONS REQUIRING IRON PYBITES from Spain, with FIFTY PER CENT. SULPHUR, are requested to apply to B. ASSELLE, Fonda del Comercio, Santander, Spain.

MANCHESTER. MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER, ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER. A Monthly Investment Circular on application.

CAUTION.—BEFORE BUYING a MINE SHARE READ TREVOR and CO.'S "MINES AND MINING," and learn the enormous risks and heavy losses awaiting all who enter on mining without experience. To the young adventurer its perusal will save scores, or perhaps hundreds of pounds.

Per post 13 stamps. 3, Upper John-street, Barnsbury-park, London, N.

* Beware of gratuitous circulars and advice, and most new mines.

MONEY.—CONTRACTORS and OTHERS can be ACCOMMODATED with LOANS, DISCOUNTS, &c.—Apply to Messrs. WILKINSON and Co., monetary negotiators and arbitrators, &c., 25, Birch's-lane, Cornhill, London, E.C.

Original Correspondence.

MINING SHARES INVESTMENT COMPANY.

SIR.—As a paragraph in last week's Journal contains some statements relative to the Mining Shares Investment Company which may mislead your readers, we beg to correct them by stating that the directors of the company have no intention of introducing the enterprise to the public market for several months to come; nor is the private subscription list closed, nor the capital all subscribed. The objects of the company can be best attained by proceeding gradually, purchasing such shares as are most suitable, as the capital is subscribed.

JOHN TAYLOR AND SONS.
6, Queen-street-place, London, July 21.

LIMITED LIABILITY COLLIERY COMPANIES.

SIR.—Capitalists who have money to invest complain (and that most justly) that collieries under the above Act have in this country been almost universally unsuccessful, and the capital invested in them thrown away, whilst many private individuals, with little or no capital, make in the adjoining collieries handsome fortunes; consequently, the question frequently arises—how is it our company fails to give us a dividend, while our neighbours are making their fortunes from the same valuable seams of coal, and with no apparent advantage over ourselves? In the leading article of last week, on the Llantwit Vardre Colliery Company (Limited), some valuable information was given as to the real cause of such failures, and until such companies adopt, as recommended, a better system of management, there will never be a dividend for the unfortunate shareholders. I can excuse London gentlemen for not understanding the intricacies of colliery management, and their being so easily misled by the incompetent hands which they too frequently fall in with as colliery managers, but this would all be remedied were they in the first place to engage the services of some eminent mining engineer of the district as consulting engineer, who would be better able to judge of the capabilities of a manager, and find them, no doubt, such a man as would, with a little capital, and a field of coal similar to their neighbours, who are making fortunes, soon return a satisfactory dividend for the shareholders. This is all that is required in a good coal, to insure the successful working of colliery companies, and directors of such companies would do well to follow this advice, and should they then be unsuccessful they will know the reason why, and be able to explain the same to individuals who may have invested their capital in the undertaking. But when I see a number of gentlemen directors of a colliery company engage a *mine captain* to manage their colliery, I am not at all surprised that neither he or they can explain the why and the wherefore the colliery does not enter the Dividend List, and I very much pity unfortunate individuals who invest their capital with such people.

Aberdare, July 13. COLLIERY MANAGER.

PEAT AS A STEAM FUEL.

SIR.—It is now more than three years since you described a process of treating peat invented by Mr. Hodgson, and, although I do not hear that the inventor has done much with his invention beyond employing it himself, it seems that he has now obtained results which are likely to secure its general adoption wherever peat bogs are found. It has been proved that even burnt in an ordinary coal grate, which is certainly not adapted to the most economic burning of peat, peat prepared by Mr. Hodgson's process may be advantageously used wherever it can be sold at a price not two-thirds that of coal; in many parts of Ireland it could be sold at about one-third the price of coal. After a series of very careful observations, Messrs. Cotton and Anderson find that the value of the patent fuel may be taken as at least 60 per cent. of that of Whitehaven or Wigan coal. The very natural remark that it is well known that every kind of fuel, and even every variety of one kind, requires an arrangement of grate and furnace peculiar to itself, in order to give the best results. Hitherto, however, compressed peat has been burnt in grates adapted to coal; and experiments under such circumstances will only indicate the lowest duty that may be expected. By the kind permission of Messrs. Findlater and Co., and Messrs. A. Todd and Co., we have been enabled to make two very fair experiments. On January 25, 1864, one of the coppers in Messrs. Findlater's brewery was boiled in the usual manner with a consumption of 37½ cwt. of peat; and on Jan. 28 the same copper was worked by means of 21½ cwt. of Whitehaven coal, making the value of the peat 56·6 per cent. of the coal. On January 26 Messrs. Todd's flour-mill was worked 29 hours, at an expenditure of 9 tons of peat; and on January 29 the mill was worked for the same time with a consumption of 5½ tons of Wigan coal, making the value of the peat 61·1 per cent. When the boiler power is ample, no difficulty is experienced in using peat in coal-burning furnaces, and the labour of firing is very little greater than with coal; for although the fuel has to be thrown in a little more frequently, there is no occasion to rake or clear the fires, as no clinker is formed, and the fire-bars, consequently, do not wear out. The importance already referred to of treating fuel in accordance with its peculiar nature was strikingly exhibited in some very careful experiments made in May, 1862, at Messrs. Courtney, Stephens, and Co.'s works. It was found that a boiler which evaporated 7·2 lbs. of water per 1 lb. of Welsh steam coal boiled off 3·15 lbs. of water per 1 lb. of compressed peat, where the latter was treated as coal; and 3·89 lbs. of water where the fuel was allowed to burn without being disturbed, or in other words, by burning the peat in a manner suited to its nature, 4 tons did the same amount of work as 5 tons when treated and stirred like coal.

The price at which Mr. Hodgson produces his fuel is considerably below that at which peat fuel has been produced by any other process, and it can be produced in large quantities. The production during the month of January last was at the rate of 84 tons per week, and that the cost of the patent fuel at the works was 6s. 4d. per ton. They estimate that, if the establishment be enlarged to produce 400 tons per week, the cost of production can be reduced to 3s. 11½d., exclusive of royalty. At present the fuel is loaded directly from the store into boats capable of carrying about 10 tons each, drawing 2 ft. of water. These boats are towed down a small canal from the works to the River Figile, and are then guided down the stream to the landing place, near the aqueduct. The cargo, which is in bulk, is then transferred by sackfuls to the regular canal boats, if intended for the Dublin market, or the Great Southern and Western Railway if for stations along the line. The process of manufacturing is very simple, rapid, and apparently inexpensive. The bog is first thoroughly drained by deep ditches, intersecting each other at intervals of about 60 yards. The upper surface of heather and loose sod is then removed, and the compact bog, thus laid bare, is scarified all over by light harrows drawn by men; the loosened surface, which dries very rapidly, is scraped off, and collected into heaps, and the harrowing is resumed. The operation in fine weather is performed twice a day, and the peat thus collected is found not to re-absorb moisture, although exposed to the weather. During the two or three hours that the loosened surface remains on the bog, if the weather be fine, it loses about 40 or 50 per cent. of its moisture. The partly dried turf or "mull" is brought from the bog in wagons running on light rails. Having arrived at the works, it is thrown into an inclined revolving riddle, which deposits the finer portions on the drying tables or plates; the coarser portions fall out at the lower end, and are ground fine in a mill. This is the only place at which the turf has again to be handled; but, in the proposed new arrangement of the works, this defect will be obviated, and the mill arranged to act automatically.

The drying tables consist of four sets of plates 250 ft. long, about 8 ft. 8 in. wide; three-fourths of these are heated by the waste steam of the engines, and one-fourth by the flue of the boiler, the hot smoke of which is blown in by a fan. The advantage of this arrangement, in an economical point of view, is apparent. The mull is moved along over the heated tables by means of two pairs of endless chains, having iron rakes secured to them at intervals of 6 feet. The upper part of the chain carries the mull 250 feet along the upper table, and pushes it down to the lower plates, along which it is brought back by the lower half of the chain, performing the entire 500 ft. in about an hour. It then passes out in a state sufficiently dry for the pressing machine, and is conveyed by revolving buckets into a loft, from which it is let down by a shoot into the machine. This is a simple and ingenious apparatus. It consists of a tube about 5 feet long and 3½ feet in diameter, into one end of which works an iron ram, making 60 strokes per minute, and at each stroke forming a cake of fuel. The resistance to the pressure of the ram is supplied by the friction of the cakes passing through the tube, from which they issue, at a considerable temperature, in the form of a solid cylinder, and are conveyed by a wooden shoot, about 300 ft. long, direct either into the canal boat or the store; this tube is an essential feature in the manufacture, as the solidity and durability of the fuel depend in a great degree on its cooling under pressure. As the end of this solid cylinder of peat passes into the window of the store, propelled forward about 1½ in. by every blow of the ram, a cake is detached and falls down. The

whole process of manufacture, from the time the mull is thrown into the riddle till the compressed fuel drops into the boat or store, occupies from three to four hours, and from what I have seen of the process, I believe that ultimately the work will be accomplished in even less time than that.

From this I think it will be admitted that Mr. Hodgson has done more towards utilising our immense peat bogs than anyone that has preceded him, and I trust the time is not far distant when peat will be in general use, not only as a steam fuel, but, also, as a fuel for smelting purposes.

Dublin, July 16.

COAL-CUTTING MACHINE PATENTS.

SIR.—Having carefully read the comments upon the case of Firth against Ridley, in the Journal of July 2, and Mr. Ridley's reply to it, in which he expresses the hope that in any future agreement there may be more mutuality and consideration, I take the opportunity of asking in what part of the agreement Mr. Ridley considers there was want of mutuality, except in that which rendered the West Ardsley representatives liable for all outlay, expenses, and loss, whilst Messrs. Ridley and Rothery were to share in profits only? I am inclined to think that if a joint-stock company were formed, which would undertake to develop the inventions of poor inventors upon condition that the company should bear all risk, and give the inventor 15 per cent. of the net profits, they would be flooded with the best inventions in the country; and that not one inventor in 100 would object to guarantee them the use of such improvements, made by the said inventor, which they might choose to work upon the same terms.

From what I have seen, none of the machines yet constructed work properly, and much more outlay and experiment will be necessary to make them practically useful, so that colliery owners, whether in England or on the Continent, would do well if they wait for a year or so, until the relative merits of the several machines, which will by that time have been practically tested, shall have been ascertained. As some time has now elapsed since it was reported that Mr. J. A. D. Heidtmann (who now writes in favour of the Ridley and Jones machine) patented that invention in Germany, without, as it is stated, even asking the authority of the inventors, perhaps Mr. Heidtmann will state in what German colliery it is at present in use, and what results have been obtained. For my part, I do not believe that the trunk engine possesses any advantage whatever over the ordinary high-pressure engine, except that the machine is shorter than the original, an end which could be readily obtained by other means. Since in England, where colliery labour is worth 4s. per day, the economy of machine-cutting is extremely questionable, I cannot understand what advantage it could possibly be in Germany, where 1s. to 1s. 6d. per day is as much as the collier hopes for, and where the seams are much less adapted to machine-cutting. The only gratifying feature in connection with the transaction is the supposition that a German has brought back a trifle of money to England, as heretofore the direction of cash movements in connection with mining has always been from England to Germany, not one penny of profit ever yet having been realised by Englishmen from Anglo-German mining companies; whilst, with respect to German mines altogether (excepting, perhaps, half-a-dozen mines), the profits realised are no larger than could be obtained in England without risk by investments in Consols. In England, on the contrary, the average of profits (taking all mines, good and bad) reaches nearly 8 per cent., or nearly thrice that of German mines.—Durham, July 20.

THE GIANT STONE-BREAKER.

SIR.—Seeing a letter in the Journal of July 9, on this subject, will you kindly allow me space to reply, and to correct a few inaccuracies therein. Your correspondent, "Copper Miner," begins by saying that—"Just as Blake's machine is becoming recognised a colourable imitation is patented;" and again—"Another patentee comes in and closely imitates the machine;" also—"The sole difference between Blake's machine and that patented by Mr. Pope, of Bristol, is that toggles are used to force forward the movable jaw in the original machine, and an eccentric in the imitation. Now, it would have been better if "Copper Miner" had enquired the difference between the two machines before he had appeared in print. If he had purchased the two specifications he would have found that not even in outward appearance are they alike; and as to the mechanical parts that are patented in Blake's, there is not one used in mine. The movable jaw in Blake's is moved by a crank, connecting-rod, lever, upright, and two toggle-plates; and the jaw works on a bearing at bottom. Instead of my invention being a colourable imitation, it is as different as dark and light, being worked by a much simpler means—an eccentric fastened on a revolving shaft, and working against an anti-friction roller at the back of the jaw, and the jaw working on a spindle at top. It will, therefore, be seen that the points of friction are reduced about one-half. And I deny that the eccentric is more liable to get out of order, as it is cast in a chisel on its wearing face. If it is more expensive in its manufacture, I can sell them 30 per cent. cheaper than the price charged for Blake's of the same size. As to the desirability of patents, I shall leave that to be discussed by able men, and those with more leisure.

W. POPE.
Bristol, July 18.

ENGLAND'S MINING SCHOOL—No. I.

SIR.—It is gratifying to intellectual men to see recorded in nearly every day's paper a visit by the Prince and Princess to some public institution, or place got up for the benefit of the public. There is very little doubt that they are the right people in the right place; they set about accomplishing work that all wise princes should attend to—in fact, they are doing their duty, by aiding the hardest working and most intellectual people on the earth—a people that always have been, and still are, prying into Nature's secrets in every clime—a people who have apparently climbed to the summit of greatness: still they must persevere, as there is nothing at a standstill. We are on a floating world, with not a single instance known of bounds being set to man's accomplishments. Davy may be said to have opened the field-gate to chemistry; a second man entered, a third man goes further, and the further each man goes only proves that a greater amount of work must be accomplished before we shall even know the rudiments of the science; therefore, perseverance should ever be man's motto. Kings and princes should stand forth as guides to progress, as they must be aware it is the true system by which to gain the affections of their people; its engines to guide them to prosperity, and prosperity keeps unity in a kingdom; consequently wise kings and princes are now visiting places and institutions that their predecessors would have scorned to look at.

I observed with pleasure your remarks respecting the visit of the Prince and Princess to the Mining School in Jermyn-street, when the whole staff mustered to show its contents and explain its progress to their Royal Highnesses. I am sure it was well worthy their attention, for there, I say, are deposited the gems of England's wealth and glory; I might almost say shut up in obscurity, for if one looks at the visitors' book it will be seen that it is visited only by the few, which appears strange to those who know (and the majority of England's inhabitants ought to know) that these gems are England's life-strings. They sowed the first seeds of science, they stimulated the mind of man to obtain them, and ultimately carried him to such a height as to enable him to accomplish wonderful works—such as the stupendous vessels ploughing the ocean, the bridges that even span the globe, the locomotive, the telegraph that conveys man's thoughts to the furthestmost parts of the earth, almost as quickly as he can repeat them, and the gas-light which lightens our darkness; in fact, all works, of whatever magnitude, even to the most minute thing in the lady's toilet, none of which could be accomplished without the agency of the mineral kingdom. If it were not for these beautiful metallic substances the people to this day would be clad in the garbs of the South Sea Islanders; but England now stands in such a position as a nation as the sun never before shone upon.

I have before mentioned, through the medium of the Journal, the apparent inattention paid to this valuable collection of minerals by the people of England; but when they are called on to take a common-sense view of it, the grave, as well as the gay, are bound to admit that it is the origin of all their glory.

If England were only an agricultural nation, I need not say what would have been her present position, as we can easily see that by observing how the inhabitants of every agricultural nation in the world have to toil hard, and sell all the best of their produce, to obtain what England manufactures. They are never in a position to maintain a surplus population, being 100 years behind the age they live in. Under these circumstances, I say, it becomes the bounden duty of every king, queen, prince, or ruler of Great Britain to watch diligently her mineral resources, and to come forward and aid science in developing Nature's laws. England has a world-wide fame for her mineral resources, and every nation on the earth knows it is that, and that only, which has carried her to the top of the tree. I ask you who did it? Was it not the hard-working miner? But notwithstanding England's dependence on her mineral productions, no king or prince, until within the last half century, ever aided him by founding a single school for his instruction; they left him to grope his way through the dark abysses of the earth as best he could, when every other branch had either pecuniary assistance or schools for his instruction. This appears to me to have been short-sightedness on the part of past kings and rulers. I boldly say that the earth's laws, even to this day, are not developed. The working miner, through watchfulness, has discovered a few of her laws, but no record is kept of them, and every man has again to learn them for himself from Nature's book, as he daily progresses through the earth; still he has learnt enough to convince him that the whole of the earth is daily undergoing changes, and working under its own natural laws.

I may here remark that I have had nearly sixty years' experience, having gone into the mines at eight years of age, had the management of a mine before I was twenty, and have surveyed as many, if not more, than any man in the world, and I have ever kept a watchful eye on Nature's laws, and I say that the knowledge of those laws is, even now, to the practical man, in its infancy. I admit a few valuable facts on Nature's laws have come out within the last fifty years, but the majority are still hidden in obscurity. What is wanted is that a selected portion of the practical youths of this country should be well schooled until they arrived at the age of manhood, and not left

wholly dependent for their living and instruction on what they learn during the day; they are engaged at school and in the mines. After they have passed through the practical and schooling portions, let them be placed in districts to work and survey every mine for one year, and then change them; they then report on every mine in the district, particularly as to what they had produced, large deposits of ore, and stating the location, the bearing and dip of the lodes, and their opinion as to what caused the ore to form at the point where found. If anything is apparently out of place about it, the ore to three or four of these men to openly examine and discuss the subject before all the practical men of the mines in the district, with liberty for any practical man to reply, then we should gather facts. Lastly, let all their remarks be returned to the Government School, to be analysed and placed on record. This would lead to the development of Nature's laws, without which England will never possess a staff of efficient miners.

N. EXTON.

THE FORMATION OF GRANITE.

SIR.—I did not until this week notice the remark of Mr. Jones, and, had I done so, should not have attended to it until he had shown he has had some practical experience in underground mining, and where he has seen granite—for I seldom or ever read the works of mere theoretical men on geology, believing it to be a waste of valuable time. Their writings only tend to mislead children, and present a stumbling-block to the young geological student—aye, for want of practical experience, they do not understand a single law of Nature as to rocks or mineral formations. Practical men have learned a few of Nature's immutable laws, and had Mr. Jones convinced me that his views on rocks and mineral formations were grounded on practice I should most likely have met him; but, judging from his remarks, I should put him down as a theorist only. Surely, Mr. Jones cannot insist on the idea that the separation of silver from lead has any analogy to the world's formation; if so, he ought to have answered my remarks as to how native copper, silver, and quartz become formed in one mass, yet all in distinct globules, the quartz six-sided, the native copper forming the bed or matrix. He should also have shown in what way he accounts for Dr. Percy's remark, where he says silica in granite has never yet melted. Had Mr. Jones favoured me with his ideas on these questions, I should most probably have replied thereto. As the matter stands, if he wishes to know my views, he had better refer to my former letters, or have patience till my present letter is out, wherein I think he will find quite enough to enlighten his mind and occupy his leisure hours for some time to come.

N. EXTON.

WHEAL COLENSO.

SIR.—In last week's Journal is the following paragraph:—
WHEAL COLENSO.—Allow me space to correct an erroneous statement made in the Journal of July 2, wherein it is asserted that large masses of rich grey copper ore have been met with at a less depth than 10 fms. from surface. I fear this is only done to deceive the public, as I have made strict enquiry, and no such discovery has been made.—E. H.: Goldsmithy, July 18.

I much regret you have not furnished me with the name of your correspondent, "E. H.," which I must request that you do, that the truthfulness of his statement may be tested, and that he may be shown to the world as the author of a malicious falsehood, and duly punished. Permit me to say that the mine has been inspected by Capt. Henry James, of Redruth, Capt. Thomas Gill, of Wheal Vor, Capt. George Tremayne, of Wheal Rose, Capt. Henry Skewton, Capt. W. H. Richards, Capt. Rogers, of Wheal Grylls, and Mr. John Kendall, of Redruth, who attended (except Capt. Skewton) the first meeting of the company, each and all of whom will testify not only that "large masses of rich grey copper ore have been met with at a less depth than 10 fms. from the surface," but that many tons of rich grey copper ore are now and have for weeks been lying near the shaft, open to the inspection of any person desirous of making himself acquainted with the facts connected with one of the most important discoveries made in the Marazion district for many years, the lode being from 3 to 4 ft. wide, a splendid gossan lode, in a most congenial metalliferous clay-slate, containing "very large masses of grey copper ore," and worth at places from 20l. to 30l. per fathom, at a depth of 12 fms. from surface.

Capt. Henry Skewton took an average stone from the pile of grey ore, and had it assayed for copper by Mr. John Angove. Copy of Assay.—Camborne, June 24, 1864: "Wheal Colenso sample—Produce, 20½%."—JOHN ANGOVE.

Mr. Gilbert, assayer, at my request, himself took from the pile of grey ore lying at surface a sample, and the following is his assay for copper:—Marazion, July 18, 1864: "Colenso Mine sample assayed—Produce, 22½%."—JAMES GILBERT. "A sample I took from the mine."

It is, therefore, obvious that "E. H." instead of being actuated by the "fear that the public might be deceived," must in the first place be himself dishonest, in the second ignorant, in the third untruthful, in the fourth utterly unacquainted with his business (assuming him to be a miner), and, lastly, instead of being actuated by any pure and public spirited motive, as he pretends, has been moved to attempt to damage this property by motives of envy, hatred, malice, and all uncharitableness.

Marazion, July 21. ELLIOTT SQUARE (Purveyor of Wheal Colenso).

THE CORNUBIA TIN MINE.

SIR.—I am glad to see, through the Journal, that the company still intend to prosecute this mine. The returns for some time have been from 3 to 4 tons of tin per month, perhaps a little more. I am told that the mine about pays its costs in working, such a limited scale. I should state that the deepest level is 70 fathoms from surface, there being no adit; in the last working the mine was sunk to the 60 fathom level, so you will see in this working only 10 fathoms have been sunk, and as the former company took away all the best tin ground as deep as the 60 fm. level, and the present company has nothing but refuse ground at and above the 60, and only one level in virgin ground, and raising 4 tons of tin per month, is it not reasonable, if this mine were sunk three levels deeper—to the 100 fm. level—that the mine would pay, and leave a good profit? I believe it would, and when down that depth the company should bear in mind that they had a shallow mine. I beg to say that I am in no way connected with the mine nor party whatever, but merely give them my independent opinion through the Journal. I will furnish you with some further account of the Cornubia in my next.

Royalton Mines, July 21. THOMAS PARKIN.

NEW PATENT PUMP FOR MINE DRAWING.—We have inspected at Messrs. Chambers', the well-known iron-founders of Little Collins-street, Melbourne, a working model of an invention for applying hydraulic power to forking water from mines. The application is new, exceedingly ingenious, and destined, we think, to work a little revolution in mine pumping. The patentee is Mr. Barnes, who has charge of the engineering department in the above foundry. The simplicity of the invention is such that the only wonderful thing in connection with it is the circumstance that it was never discovered before. The first cost of construction is less than in the case with the description of pumps now in use, and the relative cost of working is also less. The necessity of heavy underground engines and long distances from the shaft, like those of the Cornogollan and Bunyony Mines, will now be done away with. It is the intention of Mr. Barnes, who has been engaged two years in perfecting his invention, to erect one on a full working scale in one of the principal Ballarat mines, so that those interested in mining may have an opportunity of judging for themselves. The pump is similar in its action to an ordinary plunger pump, with the exception that instead of one there are two plungers, working into plunger casings in the ordinary manner. In order to lift 120 gallons per minute a height of 200 ft., these plungers would require to be about 16-in. in diameter, with a 15-in. stroke. The plungers are set one opposite the other, and kept in their position by distance pieces and cotters, the plungers themselves being connected together by four tie bolts, and so arranged that as one enters the casing the other is withdrawn. They are hollow, and are fitted upon two hydraulic rams, and worked after the manner of ordinary hydraulic presses, with this exception, that the rams in this case are stationary and the plungers move upon them, while the water producing this effect is given through the centre of the rams. The plunger casings deliver their water in the usual way to the ascending column. The action of the machine is brought about in the following way:—A hydraulic pump worked by an engine on the surface forces water down a small pipe which communicates with the hydraulic rams, and after the manner of the hydraulic press forces into its casings one of the plungers. Immediately upon its arrival at the termination of its stroke, a valve of rather peculiar construction, worked by a chain and balance weight, opens a communication to the opposite ram, which causes the water to force into its casing the opposite plunger. As the plungers are connected together by bolts, the plunger spoken of in the first instance is withdrawn, and, at the termination of its stroke, is again acted upon by the pressure from above, the action continuing as long the motive power is supplied by the small force-pump above. There are many advantages expected to be derived from raising water in this way. Among them may be counted the dispensing entirely with pump-rods, as water is in this instance the means of communicating power between the engine upon the surface and the pumps wherever it may be necessary to place them. The action of the pumps being continuous, the flow of water up the ascending column is also continuous, and not intermittent, as with the ordinary pumps. The pipes ordinarily used may, therefore, be reduced to one-half their area; and though this is not necessary, it would effect a great saving in the erection of new pumps. Another peculiar feature in this method of raising water is that the ascending column is always balanced by the descending one used for communicating the power, and this will necessarily effect a great saving in power. There will be no racking of the shaft, as the machine is complete in itself, nor is it necessary to bolt it down. It may be made to work vertically, horizontally, or at any angle, and it could be placed in a drive if required. The small pipes for communicating the power, and the large pipes for bringing the water from below, may be carried in any direction to suit circumstances. The pump for communicating the power derives its supply from the head of water, and may be fixed 300 or 400 yards from the mouth of the shaft if necessary. It may also be driven from an engine working a battery of stamps or engaged upon any other work, always supposing the engine could dispense the power required. The water used for communicating the power to the model on view in Little Collins-street is one ninth of the entire quantity raised, and this, upon being discharged from the hydraulic rams, also flows into the ascending column, but it is not necessary to carry out these proportions, as they may be altered to suit the depth of the shaft or quantity of water to be raised. The first cost will be decidedly less than the pumps in general use; and, as nearly the whole of the machinery is dispensed with, there will be, of course, less to keep in repair. In no case will there be two lifts required, as the height to which water may be raised by this process will be only limited by the strength of the pipes.—Dicker's Mining Record, Melbourne.

COAL-CUTTING MACHINERY.—There is now in operation at the Cassop Colliery, the property of Messrs. R. F. Phillips and Co., of Newcastle, the produce of which is shipped at Hartlepool, an ingeniously contrived new coal-cutting machine, the invention, we understand, of Mr. Dees, the colliery engineer, formerly of Messrs. Richardson and Son's, Hartlepool Ironworks. A suitable framing supports a large screw, which works through a screwed block, moving in grooves. To this block a huge pick is affixed, worked by bevil wheels, which cause the screw to revolve. The direction of motion is reversed when required, by means of a clutch worked from the main shaft of the machine. The machine, as a whole, works very effectively, and will supersede a large amount of manual labour in hewing. The invention has been provisionally protected, in the names of Messrs. Phillips and Dees, of Cassop Colliery.—Stockton and Hartlepool Mercury.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending July 17 was 13,378l. 18s. 4d.

HOLLOWAY'S PILLS.—Bilious complaints and irregularities of the system, produced by depraved or over abundant bile, can always be corrected by a few doses of these inestimable pills, which are everywhere admired for their rare combination of mildness and power, for though they conquer with ease and rapidly the most obstinate disease, they never weaken the stomach or necessitate any interruption of ordinary duties or amusements. On the contrary, they increase the appetite, strengthen the organs of digestion, give increased energy and life to all the animal functions, and fit both hand and brain for fresh exertions. The sick and enfeebled can easily discover what a happy revolution these pills have the power to effect in the human system.

WHEAL COLENZO MINING COMPANY.

FESTINIOG SLATE QUARRY COMPANY.

CASTELL CARN DOCHAN GOLD MINING COMPANY.

NORWEGIAN COPPER COMPANY.

FOREIGN MINING AND METALLURGY.

On the French markets Chilian copper is in fair demand, and has been dealt in at an advance at Paris and Havre; on this latter centre 25 tons

have been sold, at 92½. 10s. per ton, Paris conditions. The Rotterdam market has been firm, and the same report is made with regard to Berlin, Cologne, and Stettin, where transactions, although of no great importance, are still effected at firmly sustained rates. At Hamburg the favourable advices from England are received with confidence, and for the stocks existing on the market higher prices have already been established. Operations in tin present little activity on the Dutch market, and since the last public sale only some small lots have been dealt in at Amsterdam and Rotterdam at 61½. 10s. to 62½. 10s. The tin market is falling, English tin being there quoted 1107½. 10s. and Dutch tin at 1107. 10s. There have been few buyers at Berlin, but prices remain without notable variations. The article attracts little attention at Hamburg, and in consequence of the recent fall on the London market, English tin has receded in value. Affairs in lead are inactive at Paris and Marseilles, but the rates previously indicated are maintained without change. At Hamburg the article is sustained with tolerable firmness, but this is due more particularly to the smallness of the stock on hand, the transactions effected presenting no great importance. Little business has been done in lead at Berlin; nevertheless, the demand for export appears to be reviving. The Cologne market has remained without change; Stettin has been firm. A considerable amount of animation has been displayed in zinc, thus, at Paris previous rates are firmly maintained, rough zinc being held at 25½. 12s., and rolled zinc of the Vieille-Montagne Company at 30½. 10s. On the Hamburg market some rather important affairs have been concluded, and at Breslau the rise has also made rapid progress.

We may note one or two miscellaneous facts. A company has just been formed at Antwerp for the creation of a great workshop for the construction of engines, railway plant, and objects required in navigation. This concern will take the name of the Antwerp Forges and Workshops Company. The St. Leonard Company, at Liège, for the manufacture of iron and steel, as well as tools and machinery, has declared a dividend for 1863-4, of 3½. per share. The Marianne Mines and Blast-Furnaces Company has also announced the payment of interest on its shares at the rate of 5 per cent. per annum.

THE BRAZILIAN GOLD MINES.

Much interest existing as to the position of the various gold companies working in the Brazil, in consequence of the rumours circulated respecting the St. John del Rey Company, we append an epitome of the official despatches received during the week:—

ST. JOHN DEL REY.—The managing director (Mr. Hockin) has addressed a circular to the shareholders, with the view of putting them in possession of the fullest information as to the progress of the work of repair going on in the Bahu Mine, and generally as to the present state of the mines, and at the same time to prevent misapprehension which might otherwise arise from partial intelligence. It is satisfactory to find that Mr. Gordon hoped to resume active operations in the Bahu by the beginning of the present month. The letters received by the last mail, dated Morro Velho, June 17, inform the shareholders that the produce extracted during May has amounted to 16,788 ozt. It is mentioned that though May has 31 days, only 30 days' produce is included in this return. The first day of the month being a Sunday, the ore reduced on that day was included in the month of April. It should also be explained that only one kibble has been kept hauling in the Bahu Mine, and the supply for that kibble has been obtained entirely from the side in the western section of the Bahu, called East Quebra. Panella, which, being rather poor, had been left unworked since March, 1860. They have had no ore from the whole body of the Bahu, from the sump in the east to the vertical line passing on the west side of the section 149, in the East Quebra Panella. The eastern part of the Cachoira has not afforded its usual supply, owing to the small amount of sinking effected in May; so that the month's produce has been almost entirely derived from the Cachoira Mine, and that even not giving its average amount of ore for treatment. Of the 5158 tons treated in the stamps, no less than 3200 tons consisted of killas, rejected material from the daily supply on the spalling-floors, and brought in from the refuse depot close to the works. The standard shown in the quantity of stone stamped cannot be taken as the standard yield of the mine, as it includes the large quantity of killas rejected, excepting the 279 tons of killas, which were treated separately during the last division (nine days) of the month. It will, therefore, be understood that the returns for the month of May should not be taken as from ore, the greater part of the stone reduced being killas and other rejected material, and, therefore, the produce will not afford any guide as to the gold contents of the ore as usually treated. The produce during May is only the result of an unfavourable partial working of the mines, while the cost is unusually heavy, not so much for native pay as many previous months, but greatly increased by the heavy consumption of large logs of timber in both mines, but more especially in the Bahu. The quantity of sawn timber required has been very great for running and planing; besides the outlay required in providing 150 feet of new pumps, and a new life for the Bahu Mine. These demands have caused an increased cost, though the prices of provisions have been favourable, and having at the same time such extreme small produce; hence arises the loss on the month's working. In the Cachoira Mine, and chiefly towards the end of the month, the sump has been sunk 4 ft. vertically; but it was previously so flat that this amount of sinking, without admitting of a slope either east or west, was not of any present advantage. The sinking is being prosecuted with vigour, and its benefit will be felt when it admits of stopping east and west from the sump. As regards the Bahu Mine, it is mentioned that more time had been required than was at first anticipated in getting the pillar and timber work in this part of the mine accomplished; but it appeared desirable to put in the pillars before completing the planing of the back of the Bahu shaft. This work had been effected at a great cost, and at the sacrifice of considerable produce by delaying the stopping operations in the body of the Bahu; but there is good reason to conclude this will prove in the end the best course for the proprietors, and the future safety of this valuable part of the mine property. With respect to the gold extracted during the first division of June, being a period of nine days, and amounting to 5367 ozt., it is explained that this produce has been derived from the general mass of stone treated during that period: 281 tons of killas, picked and separately treated, has given a yield of 0.657 of an ounce per ton. The ore is stamped separately, as far as practicable; but some of the sand from killas, produced by the stamps operating on it, is amalgamated with the general body. About the beginning of next month, all going well, they hope to resume drawing ore from the Bahu Mine.

DON PEDRO NORTH DEL REY.—Capt. Thomas Treloar reports that the produce for May was 1267 ozt., being 114 ozt. more than in the preceding month. The weather has been all one could desire; so the operations generally, both above and below ground, have been pushed forward vigorously in the right direction for the future advantage of the company. They are taking advantage of the present dry season to clear and secure the entrances of the mines to the upper lode, which would not admit of it during wet weather, in order that when the next wet season commences the works upon the upper lode and boring therefrom down to the under one may proceed without interruption. The more seen of Maquina, the more is their belief confirmed that their expectations will be realised; besides the outlay required to put in the pillars before completing the planing of the back of the Bahu shaft. This work had been effected at a great cost, and at the sacrifice of considerable produce by delaying the stopping operations in the body of the Bahu; but there is good reason to conclude this will prove in the end the best course for the proprietors, and the future safety of this valuable part of the mine property. With respect to the gold extracted during the first division of June, being a period of nine days, and amounting to 5367 ozt., it is explained that this produce has been derived from the general mass of stone treated during that period: 281 tons of killas, picked and separately treated, has given a yield of 0.657 of an ounce per ton. The ore is stamped separately, as far as practicable; but some of the sand from killas, produced by the stamps operating on it, is amalgamated with the general body. About the beginning of next month, all going well, they hope to resume drawing ore from the Bahu Mine.

ANGLO-BRAZILIAN.—Capt. Thomas Treloar reports that the produce for the month of May was 195 ozt., and he regards this as very encouraging, considering the quality of the stone that had passed through the stamps. The stone in the Gongo and Buraco Seco Mines present favourable indications. At the Barril adit, although but a small force has been kept at work, progress has been made; upwards of 10 fms. have been opened out. The slope in the end at present is high.

SANTA BARBARA.—Captain Bryant, Paris, June 12: Mine: The lode in the bottom of the shallow level continues much as last reported both in size and quality. The new shaft on the south part of the present bottom is progressing favourably; the same may be stated of the clearing of the adit level south, but the old workings being very wide, and mud wet, we cannot say the progress we otherwise should. The lode throughout the stoped courses much as last reported, and to extend from the Barril, to a certain extent on the quantity of stone raised. The lode in the end north from the shaft is about 5 feet wide. In the shaft the lode continues 9 feet wide, with its usual promising appearance. In the trial level cross-cut we have not met with anything yet. In the reduction department I have nothing to report, more than that the stamps are regularly employed. The ripple tables have been undergoing repairs and alterations, consequently all the stone has been stamped over skins, and the same will be cleaned up as usual on the 20th; on the 25th we shall send on the gold to go down by the East del Rey Company's troop.

GOLD MINING IN CANADA.—By "the Gold Mining Act," assented to June 30, amongst other things, provides that licenses to mine for gold on any unsold Crown land, within the division mentioned in the license, shall be granted at \$2 per month. Licenses to mine, with the consent of the proprietor, on private lands, pay 1½. per month. Each Crown lands gold license may stake out one claim on unoccupied Crown land and work it. For alluvial mines the claims are to be 30 fms. deep, on a river or large creek; 40 ft. front by 20 ft. deep, on a small creek or river stream; and a gully 60 ft. wide, and to extend from hill to hill; and on a surface or hill side, digging 60 ft. square, except where a company intend to drill-tunnel; then, upon application, the officer for the division may grant such larger claim as he may think fit. For quartz mines one person may claim 100 ft. on the lead, and 100 ft. on each side thereof, measuring from the centre of the lead. Companies of two or more working jointly may stake out 25 ft. additional for every additional miner, the whole not to exceed 500 ft. on the lead. Claims are forfeited by more than a week's suspension. The discoverer of a new mine is entitled to a free license for 12 months.

NEW GOLD FIELDS.—A Nelson (New Zealand) paper says:—"The existence of an exceedingly rich gold field within 35 miles of Nelson cannot now be questioned, and we are realising the first fruits of it in paying an enormous advance in the price of wages and for the first necessities of life. In fact, Nelson, Pictou, and Blenheim seem likely to be nearly deserted by the men for the Wakamara gold fields. Several claims are yielding 16 ozt. of gold a week per man. Six men got upwards of 150 ozt. during the week; three Maories, who were working nine miles up a river, got 36 ozt. on one morning; Mr. T. Snow and party got on the same afternoon 16 ozt.; and Wilson's claim on the same day gave 18 ozt. from the bank, where, in the opinion of most of the diggers, the largest amount of gold will be found. One party is reported to have obtained nearly 5 lbs. weight of gold in the course of half an hour. We learn from Mr. Robert Burns, who with his cousins returned from the Wakamara on Thursday, that they saw two diggers take out in less than two hours 15 lbs. of gold. They had felled a birch tree growing on the edge of the river, and flogging about its roots, they came upon this rich prize. It is thought the whole watershed of the Pelorus will prove to be rich in gold."

HYDRAULIC QUARTZ-CRUSHER.—Messrs. Perkins and Gay, of Yuba, California, have invented an improved Chilian mill. In this machine the common Chilian travelling crushing-wheels are employed, and the patentees have hit upon the novel idea of placing water-buckets upon the sides of the wheels, thus converting them into water-wheels. The buckets are supplied from a small tank above, which rotates with the wheels, the tank being filled by a suitable conducting trough. When the water is let on the wheels travel around in the usual circular quartz trough, without assistance from any other motor. The water is prevented from entering the quartz trough by an ingenious arrangement of aprons.

CALIFORNIA HYDRAULIC ENGINE.—Mr. Thomas Hansbrow, whose "California Pump" we favourably noticed at the time of the recent International Exhibition, has invented an improved water engine. It is stated that the invention is embodied in the form of a hydrostatic engine—run entirely by the pressure (not volume) of water—works cold water as an expansive agent, and does it most admirably. Messrs. Hansbrow and Redding intend having one constructed for practical exhibition of its workings at the Fair of the San Francisco Mechanics' Institute, to be held in September next. They have a small tin model running at Mr. Hansbrow's store, which, though rudely constructed, exhibits the power of the engine, it being a man's work to stop the motion. It will supersede steam wherever a pressure of water can be obtained. In

this respect it will be especially serviceable and invaluable throughout the mining regions of California and the Pacific coast, as well as in our cities, where there is a supply of water from public works. The inventor, instead of building the engine immediately, and introducing it into use, intelligent mechanics who have examined the rough model, unite in pronouncing it the greatest invention of the age, the sewing-machine not excepted, and like all great inventions, it is simplicity itself.

THE DRESSING OF ORES.

[Notes from a Lecture by Prof. W. W. SMYTH, Royal School of Mines, London.]

There is, perhaps, no branch of mining that requires greater care on the part of the mine captain than the stamping of the ores, for he has to determine whether it shall be stamped fine or rough; and, to decide this, he must also endeavour to keep the grains as large as possible, consistent with the complete separation of the deleterious matter. Some valuable experiments have been made in Hungary respecting the advantage of having a heavy or a light stamp-head; but it is not well to be guided by any such results, it being better to try experiments with the particular stuff one has to reduce. With respect to the dressing of gold ores, you require about the same amount of water, whether the head be light or heavy, though the amount of work accomplished by the heavy heads is far greater. With other ores the amount of water must vary with the weight of the head. Of the Hungarian experiments mentioned above we may state that the following were the proportions of fine, middling, and rough grains obtained:—

With heavy heads	Rough, 11 per cent. Medium, 26 per cent. Fine, 63 per cent.
With light heads	Rough, 9 per cent. Medium, 20 per cent. Fine, 71 per cent.

We have, by-the-by, omitted, in speaking of stamps, to state that the stamp beds are sometimes of cast-iron, but that with gold and tin ores it is usual for the stamps to beat their own beds, and, with this intent, the hardest stones are broken first. A practised ear will often be a sufficient guide to the manager of a mine as to whether the stamp-bed is in good order, as he can also determine by the sound if the stroke of the stamp be of its proper length.

With regard to getting the material away from the stamp-heads, we must divide the question into several heads. The old method was very inefficient—viz., to allow the stuff to run from the stamp-heads into a pit of a more or less oval form, 4 ft. deep, and stopped at its lower end by a lattice. Little or no separation could be effected in this rough mode, and thus the labour was increased greatly in the after processes. On this account it is most important to run the stuff from the stamp-heads in such a manner that, free of expense, so to say, it shall separate itself; for if some separation be not at this early stage effected it becomes almost a matter of impossibility to accomplish it afterwards. When we have grains of all sizes, varying from fine powder to pieces as large as marbles, and of all kinds of shapes, it must be apparent that to lay hold of all these together is quite impossible, and it is thus most desirable to classify the stuff at once, and nowhere is this more successfully done than in the mines of the Harz. For these reasons it is that we would substitute for the old oval pit some of the modern improvements, such as the following, common in Cornwall. Here the ore comes from the box on to an inclined shallow compartment, where the roughest and purest grains are caught; thence it is carried into a series of long troughs, called tyes, placed at a gentle inclination, varying with the stuff to be treated. By carefully regulating the stream of water in these you may separate the ore well. The German miners divide their troughs, the first into which the ore comes direct from the stamps; the trough is placed at a certain angle, which gives a velocity to the water that passes over it, and here the larger grains are caught. From the end of this trough the stuff passes into a second one, a little wider, and still less inclined, and so on to a third, from which it passes into a round trough, into which the stream is so brought as to give it a circular motion. The whole arrangement seems good. A far more satisfactory plan is that known in the Harz as "Spitzkasen," invented by Mr. Rittingen, which has a great and special advantage, not sufficiently appreciated in this country. The objection to our troughs is, that when one set become full you require a second set whilst you empty the first; and in the process of transfer from the troughs a great deal of manual labour is lost. This difficulty is entirely avoided by Mr. Rittingen's plan of boxes. There is a very nice little machine at work at the Devon Great Consols Mine, consisting of a wheel like a common overshot water-wheel, 5 ft. in diameter, with buckets, which are fed near the top by water containing the tinstuff. On passing round the wheel comes to a trough, where the lighter portions of the tin contained in the water with which the bucket is partially filled flows over, and is carried away to be treated as slimes, whilst the rougher and more tenacious particles remain in the trough, whence, finally, they are forced by a jet of water into another bucket. At Drake Walls Mine there is a little apparatus similar to Mr. Rittingen's, consisting of a conical basin, into which the stuff runs, and having a hole in its bottom through which the rough escapes, and the slime is carried over the top by the rush of water. There are other means of separating valueless ore from slime, as the Welsh buddle. Again, there is another class of apparatus, called shaking trunks, employed for getting rid of the rough stuff mixed with the fine. These trunks are generally made wider at the bottom than at the top—say 2 ft. wide at the head, and 4 ft. wide at the bottom, so that the stream opens out as it flows down. The ore comes on the trunk with the water, having been mixed by a shovel in a box at the head of the trunk.

All the apparatus mentioned above is but preparatory, and in consideration of the after processes, the material falls under two distinct heads, according to its size, and the machines for cleansing it are—1. Buddles. 2. Frames. Buddles depend on the principle of introducing water on a more or less inclined surface, so as to bring into play the separation of the stuff, according to the specific gravity of the particles. Important points in this are the impetus of the water, its quantity, and the area of the surface of the opposing force. The angle of inclination of the bed of the buddle must be adapted to the stuff to be treated. The simple form of the earlier period was to bring the stuff as close as possible to the head of the buddle, but this is now altered. The great difference between buddles and frames are, that in the first the stuff shall remain in it and accumulate, and afterwards be dug out by hand; whereas in the frame the stuff is only allowed to accumulate in very small quantities.

In most improved machines for washing the water and ore is mixed in a box, and driven by the force of the water through a grating, by which the rough particles are caught before the ore passes over the machine. The buddle is nothing else than a long box, at least 8 ft. long, or better, 12 ft. long, and from 3 to 6 ft. wide. The operation of washing consists of the following treatment:—The stuff runs down on the head, or jaggings board, between pegs so arranged that the thick water may be equally distributed over the edge of the buddle. The bed of the buddle is made to slope in proportion to the roughness of the material to be washed. There is a board at the bottom of the buddle in which holes are made, to be stopped with plugs, and by which about 1 foot of water is always kept at the tail, for if it were allowed to escape as fast as it flowed in, it would form a channel in the stuff. The best of the ore will, of course, be found nearest the head of the buddle; it will, however, be necessary to re-buddle the contents of the several divisions of the ore. The circular or round buddles are very useful when you want to get through a great quantity of work. They consist of a circular base, conical in form, and made of planks radiating from a centre outwards. The ore is delivered from a funnel encircling the centre of the buddle, and the ore is kept in motion by lathes or knives, made continually to revolve on the table. Slime trunks act on the same principle as buddles. Frames are of two kinds, stationary or moveable: the former are used in the gold mines of Brazil and the Harz.

In old times, hides of oxen, with the hair turned outwards, were used as frames, also blankets and rough cloths, especially for gold ores. In such cases the auriferous mud is allowed to flow over the cloths for a considerable time, until some quantity is collected. The frame is a rectangular table, with an edge around it some 5 in. in height, and a head-board, over which the slime flows on to the table. Between the head and the table is a flap of wood, attached by leather to the head-board, and which allows of the table being turned on its ridge, for it rests on two pivots apart from the fixed head-board. Some frames are hand frames, others machine frames—that is, some are worked by manual labour, others by water power. The object of the frame being made so as to turn, is to wash the matter accumulated on it off into boxes which are placed underneath it. Thus as soon as a good film is deposited on the table, the supply of slime is cut off, and a stream of clear water allowed to flow over it, and the girl passing assists the clearing by a small tool she holds for the purpose. The frame is then turned over, and the slime washed from it, when it falls into the boxes underneath, of which the one nearest the head will

contain the richest ore. The most elaborate frames are those to be seen in Saxony, where they are of great length, and made in divisions.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market continues inactive, and the business doing of a very restricted character. Still there are numerous enquiries for shares at the minimum quotations, which cannot be obtained, which imparts an improved tone, and it appears probable that a better market is not far off. During the long quietude which has prevailed in the market, shares have been quoted much lower than any given number can be presumed at, arising, probably, from forced sales of small numbers. Hence it may be assumed that an advance and general improvement will shortly take place, especially the standard for copper ore has improved during the last three weeks.

WEST SETONS have been enquired for more freely, and WHEAT SETONS are also in demand, several shares having changed hands at improved prices.—EAST RASSETS are in request at minimum quotations.—COOK'S KITCHENS have receded, and are offered at lower rates.—NANOLLES, after showing a little more firmness, left off weaker.—LAW CARBON and GREAT SOUTH TOLGUS have declined, and are freely offered.—CARBON has been in considerable demand, at advanced prices.—CARN CARBON are in request at better figures.—NORTH RASSETS have changed hands at fair market prices.—WEST FRANCES are enquired for at nominal figures.—TINCROFTS are quiet, at present prices.—GREAT LAKES are an exception to most others; an active enquiry maintained, with advancing prices.—EAST GRENVILLES have been extensively dealt in, at advanced prices, and likely to be in great demand.—WHEAT GRENVILLES are rather quiet, without any material change in price.—NORTH CROFTY and NORTH TREKERRY have been in request at buyers' figures.—KITTY (St. Agnes) and ST. DAY UNITED are slightly better.—GREAT NORTH DOWNS, HALLENBEGLE, and GREAT HUBY are rather quiet, although some time since prices have taken a turn.—WEST CHIVERTON have receded, and CHIVERTON appear firm at present prices.—EAST ROSEWALKS are lower.

EAST WHEAT LOVELLS have been done at lower rates, but show a strong tendency to improve.—SITHNEY and CARNMEL are quiet, as well as all the new adventures in the important district.—GREAT WHEAT VORs have changed hands, but no material change in price.—EAST CARADONS have been freely dealt in at quoted prices, but some fluctuations have since followed.—MARKE VALLEYS are enquired for at present quotations, but found rather scarce.—TREKAWAY and MARY ANN are more in demand, and several shares changed hands.—WHEAT CREBON and EAST ROSEBELL have been in good request, but off a little weaker, being more freely offered.—NORTH DEVONS are in good demand, and a great many shares have changed hands at improved rates, showing a strong tendency for a further advance, arising from the great improvement which has taken place in the mine.—EAST CARADON: Although the new lode has fallen off in the 60 and west and 70 east there have been improvements in the caunter and south lodes to the extent of fully 30½. per fm. in the aggregate. The caunter lode in the 60 east is worth 15½. per fm.; the 70 east, 10½.; the 80 east, 15½., and the 80 west, 5½.—New Lode: The 80 west is worth 5½. per fm.; the other places are unproductive at present.—South Lode: The 70 east is worth 6½., and the 70 west 35½. per fm. The monthly sale of copper ore realised, on Thursday, 23rd, 12s. 6d.—MARKE VALLEY sold 411 tons, realising 122½. 12s. 6d.

KELLY BRAY is represented to be looking a little more encouraging. The lode in the 70 east is opening out more promisingly, the matrix of the lode generally being of a most pleasing character. There are other points looking better. They have opened on the back of the north lode for upwards of 60 fms., presenting most encouraging features.

NORTH DEVON.—The prospects of this mine are daily improving. The caunter lode at the 10 fm. level continues to open out remarkably well, being now worth from 10½. to 14½. per fathom: 30 tons per month can now be raised from the several points of operation, which will give a profit of about 2200. per month. This mine is likely to take a very important position among our best lead mines, and should the caunter open out in the 20 and 30 fm. levels anything like its present value in the 10, it will become one of great permanency and value.—NORTH JANE: The general prospects of this mine are improving, and they were opening up some ground which, in all probability, may turn out profitable. In consequence of the eastern part of the sett they have opened on the back of a very promising lead lode, which being in virgin ground may prove of a permanent character, especially as the whole district is highly mineralised.

ST. DAY UNITED: The general prospects of the mines are of the most encouraging character, and before the next four-monthly meeting a great and important change may be fully expected. There are several points of great interest and value to which operations are being directed, when completed will place the mines in a far better position, with long runs of tin ground laid open. Notwithstanding that no dividend was declared at the last meeting, a credit balance of 17500. was carried forward, and a profit of 6841. shown, as well as an increase in expenditure of 8400. arising from extra buildings, materials, and circumstances over which there was no control. Great improvements are fully anticipated, with strong features indicative of early discoveries of both tin and copper ore.

EAST CARN BREA is represented to have improved in two or three important places. In the 60, west of the cross-course, the lode is yielding 5 tons per fathom. The 50 east and west are worth 4 tons per fathom together. The new lode, in the 50 west is yielding 3 tons, and east 1 ton per fathom. Other places are producing their usual quantities.

GREAT SOUTH TOLGUS continues to look very well, although there has been a slight falling off in two or three places, which is considered of a merely temporary character. WEST CHIVERTON is represented as never looking better, on the whole, than at the present time, the most productive places still maintaining their value. The shaft in the course of sinking below the 80, and the sumpmen are progressing rapidly, with the exception of the shaft, there is not a place in the mine but the men have good lead ground to work on.—CHIVERTON MINE: The operations here are going on satisfactorily, and although the progress made in forking the water has not been so rapid as desired, yet every effort is being made to get to the bottom, and now that the pitwork is completed in both shafts great progress will be made.—AT GREAT SOUTH CHIVERTON there is a very good discovery, and the prospects are of the most encouraging character.—CHIVERTON VALLEY is spoken of as a very promising adventure, and from its geological position and general character of the ground is looked upon as of more than ordinary promise.

ROSEWALK HILL and RAMSON UNITED.—The discovery recently made in the 130 will, in all probability, prove a most valuable addendum to the general improvement which has taken place in these mines. The carbona continues to look well, and is worth from 70½. to 80½. per fathom, and opening out remarkably well, both north and south from the main, or standard lode. No change has taken place in any other part of the extensive operations, which are about the same as last officially reported.—SOUTH ST. IVES: The valuable discovery reported in Rosewalk Hill, in that portion of the sett bearing towards this mine, is looked upon as a very important feature, proving that the carbona discovered there is making south towards South St. Ives. The prospect for shares continues steady and satisfactory.—EAST LOVELL: The diagonal shaft is now down 11 fms. below the 25, and the lode is reported worth 1000. per fathom for the size. The rise in the back of the 20, on the junction, is not quite so good as last noticed, being now worth from 80½. to 90½. per fathom. The shaft sinking under the 20, on the south lode, is down 7 fathoms, where the lode is worth 1000. per fathom.

CORNUBIA TIN MINING COMPANY (Limited).—I referred a short time since to the reformation of this company, when the arrangements were incomplete; but now all is completed for a most satisfactory re-establishment of the company upon terms that cannot fail to meet the entire approval of all that are now or may become associated in the adventure, and participate in its future profits. The mine has been in operation for some four or five years, consisting of a property created from the debris of an abandoned mine, with steam-engine and materials too good to be thrown away, and well fitted for the development of this property. Still machinery, without a sufficiency of capital to clear up the old workings, open out the levels, and extend the cross-cuts, was soon felt as inconvenient, and pressing severely upon those who, very laudably, were desirous of seeing a successful termination of their energies. And although there had been erected the most efficient machinery to keep the water and prosecute the operations to a profitable issue, towards which they were rapidly approximating, it was determined by some of the shareholders to tighten their purse-strings. The present reformation, however, from previous experience, the value of the enterprise, and their prospects, inviting public co-operation in the reconstituted form, upon terms highly favourable to all associated in the development of the undertaking. It is needless to state that the most effectual and highly efficient machinery is erected, to bring and prepare the produce for the market, upon the newest principles and most economical means that can be possibly adopted. The water, which is a large and indispensable item in tin dressing, is so ingeniously applied and re-applied as to render that element abundant for all requisite purposes. The mine has been continued working through all the disadvantages and restrictions of necessary work, and has nearly paid the cost of its maintenance, notwithstanding the expenses of some 100,000. There is very little, if any, doubt as to the mine becoming an early paying one, and no sooner will the shares be allotted than the most vigorous operations will be resumed, and the several cross-cuts completed to the opening of the lodes at deeper levels, so as to render Cornubia a permanent and highly productive mine. The proposed terms, the recommendations of the most practical and experienced agents of the county, and the administrative selected for the future government of the works, are sufficient to inspire confidence in the most sceptical spectator.

JAMES LANE.

From Mr. GEORGE BATTERS:—The Market for Mining Shares during the week has improved in tone, and the advance in the copper standard has imparted firmness to the better class of copper-producing mines, such as SOUTH CARADON, EAST CARADON, SETON, HALLENBEGLE, &c. In lead mines, WEST CHIVERTON, GREAT LAKES, and CHIVERTON are in exceptional demand. WEST CHIVERTON, £5 to £7½; the meeting will be held about the first week in August, when a dividend will be declared. This mine is opening up the richest for lead of any mine in the kingdom. The 50 west, on Williams's lode, is worth upwards of 1200. per fm.; the 80 east, on Valpy's, 1000.; the 80 west, on Elizabeth, 300., and the mine throughout looking better than at any former period. Shares are sure to have a great rise. CHIVERTON, 8½ to 8¼; the shaft is sunk upwards of 50 fms. from surface, and the drainage of the old mine is progressing rapidly. The report for the meeting will be satisfactory. The mine is sure to be profitable when drained, and shares advance to a high price. EAST GRENVILLE has been inspected by Capt. Charles Thomas, and favourably reported on. GREAT LAKES has this week been inspected by Capt. Vivian, who confirms, in the main, all the reports and statements officially made.

From Mr. WM. LEELE.—It would seem as if the schemes for forming new monetary institutions, under the name of Financial Associations, or with similar cognomina, were multiplied in proportion as people are unwilling to part with their money. A million here, and a million there, are coolly asked for, and, I suppose, expected, the City of London being presumed to be of sufficient capacity to embrace every commercial project that is offered to it. Every interest, every imaginary interest, will have its financial association, under some form or other, if the ingenious projectors and idealisable operators in commercial companies can but realise the magnificent conception of their own teeming and capacious minds. At present, there is some fastidiousness about the public appetite that induces pause, and almost abstinence, from the other side, the public appetite spread out on all hands, and with a few exceptions, the ingenious operators will vainly upon the listless crowd of money-holders to take seats at their respective tables. There is a notion, somewhat widespread, that most of the best of our money is hoarded in the City of London, and that the best of those that remain, more or less resemble the apples of the Dead Sea valley, which though fair to the eye are bitter to the taste. There is no dearth of money, and men's minds have become tolerably reassured on public affairs. The King of Denmark, though late, and not until after he had made some blunders and some costly sacrifices, both in lives and in territory, seems to have escaped up his mind to make the best of a bad business; and, somehow or other, we shall escape an embroilment on account of the obstinate, but brave, people of the Baltic. The small matters that remain on hand in Parliament will soon be disposed of, and we may not will for some time to come be laid upon the shelf, carefully packed in monetary circles, though unreasonably look, therefore, for some more active movement in monetary circles, we may think may be some weeks hence before we realise much of it. When it does come, we may fairly expect that persons who have money to use will begin to see that to add to the wealth of the country is quite as important, and, in the end, more profitable to themselves, than simply to distribute what has been already obtained. When this is the case, they will find, if they have not waited too long, that there are some means to market yielding, or on the eve of yielding, useful metals for trade, and precious metals for their proprietors. Some of them require further development and capital for that purpose, but are in the meantime, and from month to month, increasing in real value,

I last week spoke of the GREAT LAKES, as amongst the mines upon which I long since directed my attention, as promising great things, and recommended all my friends to purchase shares while they could get them. They were then at 44. I last week they were at 101. 1/2, and this week they are still higher. I again advise purchasing at the present price. So also of the GREAT SOUTHERN CHINA, which was being opened with great progress. They have now discovered, a very fine east and west lode, composed of flint, and containing a deal of malleable, and occasional spots of lead. As they proceed with the work, the ground improves, and is more congenial for lead, and they are about to commence the sinking of another shaft, having completed some of the works at surface.

FOREIGN MINES.

SILVER MINING COMPANY OF NORWAY.—D. T. Macdonald, July 8: South Ransrud: The vein has yielded fair schistoids during the past week in the east. We shall begin next week to stop away the ground from the sole of the level, and at the same time resume the sinking of the shaft. We fully expect that the vein being now exposed to attack in a strong and satisfactory manner, the results may be obtained in stopping the ground which the foregoing three bargains have been worked, has been in this mine, and upon which I am glad now to be able to report that it is again being for some time silver, with every appearance of an improvement. —Neues Gluck: There is no change to notice in the character of the ground. —Stamps: We have stamped 140 malm during the week, and this has yielded 11 1/2 cwt. native silver, besides 14 malm of lead. The pump erected to pump back to the stamps the same water consumed in the process, is now in full operation.

PORTUGAL.—Capt. Rickard, July 15: Rour: The engine at Richards' shaft works well, and the water is being forced from the 60 to the 80 metre levels. The 60 metre level, south of Richards' shaft, is unproductive. In the same level, south of the 60 metre level, south of Richards' shaft, the lode yields stones of ore, but not in sufficient quantity to save. Our shaft continues to yield moderately. We have four in the back of the 60, at Richards', three in the back of the 40, north and south of Agnes', one in the back of the 20, south of the same shaft, and two in the back of the adit and in the back of the stollen. —La Grange: The adit north of cross-cut is unproductive. Our stopes in the back of the adit and 20 yield well. There is no change in the adit west from La Grange. —Miche: The 100 metre level, east in very hard ground. The cross-cut east and west of No. 8 lode, in the 100 metre, are in lodey ground, which shows spots of ore and blende. The rise in the back of the 80 metre level, on No. 2 lode, opens tribute ground. There is nothing new in the adit cross-cut west. —La Brousse: The shallow level north of shaft yields a little in the adit cross-cut of good quality. We have to drive north of shaft, where the lode yields a little more. —Fral: The 70 fm. level north, on Susan's lode, is in productive ground. The 50 fm. level, on the eastern part of the same lode, yields stones of ore. The same level, on the main part of the lode, opens tribute ground. The 30 north is poor, so also is the 8 fm. level, in the same direction. The winze sinking on the eastern part of the lode yields 1/4 ton of ore per fm. Our stopes and tribute pitches are about the same in value. —Surface: Our dressing goes on tolerably well, considering the supply of water, which is small. We have set the new crusher to work, which goes on very well.

VICTOR EMANUEL.—Thomas Roberts, Miggiandone, July 15: In the stopes in the bottom of Falconer's level, the lode is 5 feet wide, worth 107 per fathom. In the end of Thompson's level the lode is 4 ft. wide, yielding good stones of ore. In the old stopes in the bottom of this level the lode is 5 ft. wide, worth 71 per fathom. —Clinton's level: In a new stope in the bottom of this level the lode is 4 ft. wide, worth 91 per fathom. All other points are without change. All the work connected with the water reservoir will be completed this week. We do not think it, however, advisable as yet to turn the water into it, but intend to let the mortar become firmer. The walls for the ore-house, on the crusher-floors, are nearly up. All materials for the completion of the new establishment, with the exception of a few rafters and some tiles for the ore-house, are at the mine. We have commenced shipping the ore to Genova: 64 tons of ore, in 1507 bags, have been sent off this week; 40 more tons at the mine are already partly packed for shipment, and will be sent off as soon as ground they will allow. —Cava Vecchia: In the 25 metre level. In driving north of this point the lode is now 5 feet wide, composed of quartz and stones of copper ore, and we think we shall soon have to report a rich discovery. In the 65 metre level, driving north of shaft, the lode is 2 feet wide, yielding good stones of ore. The lode in the stopes in the back of this level is 2 ft. wide, worth 107 per fm. All other points are without change. In the new shaft the 35 metre level cross-cut west is now driven 20 metres from the shaft towards the lode. The last 10 ft. of this cross-cut have been in branches of spar, carrying spots of ore. Providing the underlie of the main lode prove the same as at surface, we are not far from it. The stopes in the back of the Victor Emanuel are in a lode 3 feet wide, worth 107 per fm. —Surface Work: The winding-machine for the new shaft has been put up. We have yet some more work to do around the collar of the shaft, but hope to complete it next week. We have shipped to Genova during this week 477 bags, or about 20 tons, of first-rate ore. —Crodo Gold Mine: We are happy to tell you that we have fished and cleared the old shaft in this mine to the depth of 10 fms. under the adit. At this depth we have found a level, 80 metres long, going west from shaft. The level is standing, but is partly full of mud. In the end of the ground of this level we find a lode of auriferous ore, looking most promising. We purpose for the present to stop forking and clearing the shaft, and to clear the level. As soon as it is cleared, with which take about two weeks, we shall at once commence to break gold ore from this end. From what we see now we have not the least doubt but that there is a very good lode in the bottom of this mine. There is nothing now to be feared that can hinder us from reaching the bottom. The above-mentioned level standing open, the ventilation of the mine to its depth is good. The winze sinking on the new discovery is still producing good ore, and looks kindly for further improvement. We have constructed a small number of native amalgamating-mills: they will be ready to work during this month, and during next month we hope to forward to the office the first remittance of gold from this mine, and to prove definitely the value of the ore.

THE VAL TOPPA.—July 16: The manager writes—I have the pleasure to inform you that I have this day forwarded to the office in the usual way a box containing another remittance of gold, in two ingots, weighing 2422 grammes, obtained from the amalgamation of ore. This quantity of gold, returned to us, is the produce of last month, is a little less than usual, because the water at the mine has diminished very much, no rain having fallen for some time; we are, therefore, obliged at present to work with a smaller number of the native mills. This inconvenience will be overcome when the new establishment is constructed, as the water-power from the Ana is permanent and abundant for all purposes. The mine continues as rich as ever, and if we have a fall of rain we shall be able to make up for the deficiency of last month through increased produce of this month, which will be forwarded during August.

—W. Harris, T. Roberts, July 14: The progress at surface since our last has been satisfactory. Under ground, the tramroad in John Fisher's level will be finished in about a week from this date. After that time we shall construct another tramroad, and the Marmo Rosso workings. The end of Marmo Rosso level continues to yield good quartz for the mills. We have lately found more visible gold than usual.

VALLANZASCA.—July 16: The superintendent writes—Enclosed please find the captains' report, from which you will see that we are doing all in our power to push the work. I am glad to inform you that fair progress is now being made. I have not smelted as yet the gold at the mine; I thought it better to wait until the end of this month, so as to make a larger remittance. We have now a considerable quantity of amalgam on hand. The mine continues to look well, and the quantity of ore discovered is enormous. All that is wanting to produce daily large quantities of gold is the machinery, but as the establishment will be one of the largest amalgamating works in the world, it requires, of course, time for its erection.

—James Roberts, Thomas Roberts, Battiglio, July 12: Since our last we have been very much occupied in carrying on the necessary tramways and shafts. At the establishment we are getting on as fast as we can. We hope to get up the big wheel in the pit, and to get all the heavy shafting through the house in the course of one month. The crusher also will be ready to work by the end of August. In the course of next month we will report on the working of the new east-iron bed mills, which are now about ready to be started. We continue to work a small number of native mills; their produce is the same as last reported, about 1/2 cwt. of gold per ton of ore.

NOVA SCOTIA LAND AND GOLD COMPANY.—The directors have received by the recent mail remittance of 193 cwt. 12 grs. produce of Sherbrooke and Oldham for the month of June. At Sherbrooke 50 tons of quartz yielded 106 cwt. of gold. A new lode has been discovered about 300 ft. south of Sher's lode; it is about 3 in. wide, and looks very promising. The first lot of quartz produced 6 cwt. of gold to the ton, and the last lot just as good. At Oldham the Hall lode continues to run very irregular from the surface to the depth of 50 ft., at which depth from the shaft we are driving a cross-cut south, and have gone through what we suppose to be the Hall lode, showing some slight signs of gold, and within a distance of 4 ft. there are three other small lodes, regular form. I employed six men to open on the lode at the surface a little further west, and I find there the same disturbance, but the lode is very rich in places. On account of not having water to crush with, we have not had 25 lbs. of quartz, which gave 31 cwt. 12 grs. gold amalgam. We have about 20 tons of slate and quartz from this lode ready to crush.

CAPE COPPER.—Hondeklip Bay, July 8: I learn that the *Conqueror* sailed on the 1st inst. with 540 tons of ore, and the *Glenason* on the 25th ult., with 250 tons, leaving about 370 tons on beach, or little over the cargo required by the *Simon*, now discharging outboard cargo in Table Bay. I have pleasure in informing you that we fully anticipate learning by the arrival of the next inland post from Marmagueland that heavy rains have fallen in the district, as the letters last received were detained upon the road, and were saturated with water. This will enable the farmers to commence ploughing, and an early commencement of the "putting" season may be looked for. Capt. Clemens writes from Cape, June 11—"Ooklep Mine: No. 1 stope has produced by computation 129 tons of 33 per cent. crop ore, which, with a rough estimate of the dredge undressed and associated with other ore of similar class—say, 1-2 per cent. of crop, 25 tons, nearly 25 per cent., together 154 tons. In driving east from No. 1 shaft 11 1/2 fms. have been advanced from shaft; extended for the month 13 ft. 6 inches. There has been no alteration in the character of the ground, consisting of compact felsitic rock, diffused with spots of ore and iron; and while such continues we have reason to hope, judging from past results, that we are proceeding over deposits of ore, the extent of which will be proved by a deeper level from No. 2 shaft when sunk sufficiently deep. It is our intention to resume the sinking of this at the earliest opportunity. Should we have a favourable rainy season it will impede its sinking, but in other respects will be of immense benefit to the country. We have driven a cross-cut north of the east level 9 fms. from No. 1 shaft. This has been extended 20 ft. 6 in., showing for the distance precisely the same nature of ground, diffused with spots of ore and iron, and met with in the latter portion of the drive east. In driving the north-east level from western cross-cut 4 fms. have been extended through rich ore ground. In proceeding easterly from the hard, unproductive, granite rock named in my last, we find a continuous course of rich yellow ore, averaging 27 per cent. for crop ore. We find in advancing in this altered direction that ore are falling back north, and resuming, as it were, the original position, which is a favourable feature towards the expansion of the express beds.

We have recently commenced a cross-cut south in the east level close by No. 1 shaft; producing some tolerably good ore, diffused with quartz and felsitic rock; the object of this level, like the before-named cross-cut, has been to explore the breadth of the ore ground. I should tell you that the latter is suspended, it being situated near the extreme end of the east level. We shall not gain much valuable information by proceeding with this cross-cut for the present. In sinking No. 3 shaft we have sunk the whole time in all 5 fms. 5 1/2 ft. During the past month we have had our nearly the boundary granite rock; I hope to have this shaft down to the western cross-cut, or very near thereto, by the end of the present month, should the ground not become any harder. —Western Trial Shaft: No. 1 has produced within the past fortnight some strong

yellow ores, being mixed with muddle and iron, and is, on an average, not of high quality, but is improving in quality and quantity as the shaft proceeds, the felsitic and quartzose rocks occurring in slightly inclined floors dipping easterly with the hill, which is also a favourable condition. Judging from recent results, I think I may fairly infer that we are falling the ore more concentrated in proportion to the depth attained; this seems a promising spot, but further explorations are needed to ascertain its true character. No. 2 trial shaft, sinking on the same metalliferous range of hills north, has produced a few pieces of rock containing spots of ore; some time will have to be devoted to the exploration of this before any decided result can be known. In Nababep stopping north from north shaft, and also south from same, ordinary quantities of ore stuff have been obtained as for the past two months. Nos. 1 and 2 levels are proceeding under the kops; the ground in these levels has been harder than we have previously had it, and, consequently, the progress has not been so favourable.

At Spectacle Mine 82 cubic fathoms have been stope north of the incline, and the ore returned for the month, exclusive of seconds, 93 tons. This stope has been producing very inferior stuff throughout the month, of first-class ore only in limited quantities, ordinary silicates of copper predominating over the sulphurets and oxides of copper. The sinking of the trial shaft below the bottom floor has been through schistose rock 13 feet, and has produced at intervals some good faces of purple ore, mixed with yellow sulphurets; this latter is but rarely met with, though favourable in its character. At present the ground is darker in colour, and much harder than it has been, and containing considerably less ore. This shaft, if not interrupted by the dip of the granite close by, will, with the trial levels therefrom, give a good exploration to this bottom floor.

SALES OF COPPER ORES.

COPPER ORES SOLD AT THE CORNWALL TICKETINGS FOR THE QUARTER ENDING JUNE, 1864.

Mines.	Tons.	Amount.
Devon Great Consols	6028	£32,955 1 6
Clifford Amalgamated	2832	14,233 14
South Caradon	1498	14,139 6 6
East Caradon	1480	9,265 0 6
West Basset	1027	6,655 19 0
West Seton	902	6,114 4 0
Worsey Consols	790	4,895 1 0
Phoenix	1371	4,857 14 0
Wheal Seton	860	4,000 16 0
Marke Valley	1241	3,952 0 0
Great Wheel Busy	1296	3,755 9 0
Wheel Friendship	436	3,540 6 0
West Damsel	790	3,444 17 0
Carn Brea	635	3,417 19 0
Prosper United	993	3,126 10 0
Craddock Moor	618	3,026 14 0
Tywarhale	840	2,929 15 6
East Carn Brea	655	2,910 8 0
Bedford United	600	2,657 8 0
Wheal Rose	410	2,645 9 0
West Caradon	334	2,207 19 0
South Tolgus	406	2,118 19 0
Wheal Basset	322	2,161 4 6
Par Consols	202	2,102 2 0
Rosewarne Consols	241	1,983 12 0
Great South Tolgus	233	1,771 17 6
Copper Hill	336	1,736 3 0
Hington Down	442	1,711 4 6
North Trekerby	344	1,588 11 0
North Roskear	194	1,545 13 6
East Pool	513	1,430 4 0
East Basset	182	1,410 12 0
East Rosewarne	155	1,374 18 6
New Wheel Marthia	679	1,348 8 6
Wheal Margery	380	1,327 5 0
Great North Downs	420	1,326 7 6
Devon and Cornwall	420	1,295 4 0
South Frances	231	1,291 6 6
Penden Consols	195	1,229 0 0
Brookwood	295	1,223 12 0
Boscawen	327	1,218 16 6
Treloweth	175	960 17 0
Levant	201	937 19 6
Pelmar	145	910 7 0
East Russell	224	899 14 0
New Whearne	103	805 14 0
Toladden	168	796 12 6
Tolcarne	177	792 12 6
Rosewarne United	139	715 1 6
West Tolgus	109	673 14 6
North Downs	125	672 17 0
Glasgow Caradon	170	630 7 0
Gannick Lake Clitters	90	605 5 0
Okel Tor	156	587 12 6
West Fowey Consols	70	586 5 0
Wheal Butler	112	563 19 6
Dolcoath	112	562 4 0
North Robert	126	546 1 0
Wheal Crebor	123	469 12 0
Wheal Uny	86	447 10 0
East Wheal Ellen	102	404 7 0
Wheal Emma	140	431 3 0
South Dolcoath	39	395 16 6
Botallack	65	388 9 6
Nangiles	78	375 13 0
Wheal Grenville	57	358 8 6
Conema	50	354 14 0
Furdon	90	354 19 0
Sordridge Consols	60	352 9 6
North Croft	97	353 5 0
Charlotte United	139	336 9 6
Wheal Anna	55	269 10 0
South Croft	71	258 16 6
St. Day United	88	244 7 0
Wheal Arthur	105	241 15 0
Yarner	92	234 12 0
Eliza Cornish	28	234 10 0
New Treleigh	86	231 15 0
North Croft	31	218 11 0
East Polmar	27	215 6 6
North Rambler	42	206 19 0
Tincroft	50	205 3 0
Condurow	47	201 16 0
Wheal Edward	84	200 8 0
West Strat Park	81	180 11 6
Kelly Bray	70	179 6 6
Calstock Consols	70	177 14 0
Graham and St. Agatha	37	177 9 0
Falmouth and Sperris	62	153 3 0
Allen's Ore	18	151 13 0
East Grenville	52	180 8 0
Lady Bertha	65	147 17 6
South Carn Brea	33	146 16 6
Peden an-dren	23	144 18 0
Gurlyn	28	144 6 0
Wheal Killy	17	144 10 0
Wheal Hartley	37	129 4 0
Wheal Emily Henrietta	16	117 2 6
Crane	32	116 0 0
Wheal Curtis	32	116 0 0
North Frances	25	110 0 0
Hiwamoor	24	106 16 0
Moyle's Precipitate	4	106 0 0
Viesick's Precipitate	4	106 0 0
Alfred Consols	16	97 4 0
North Basset	17	91 7 6
Carlisle's Precipitate	11	84 19 6
West Trevelyan	20	83 0 0
East Wheal Florence	20	83 0 0
Buckingham's Ore	17	76 10 0
Camborne Consols	14	65 19 0
West Alfred Consols	53	61 17 6
Michell's Precipitate	2	60 0 0
Aver's Precipitate	2	60 0 0
Stray Park	15	60 0 0
Tresavan	26	60 0 0
Great Alfred	22	57 12 0
Collacombe	12	57 4 0
Wheal Agar	13	56 4 0
Nines's Precipitate	1	43 0 6
Crowan Consols	13	42 15 6
Wheal Towan	25	41 5 0
Camborne Vein	17	37 8 0
Boltho's Precipitate	1	25 10 0
Collins's Precipitate	1	23 10 0
West Wheal Grylls	5	20 5 0
Pengelly's Precipitate	1	24 7 6
Symons's Precipitate	1	23 10 0
New Hendra	3	19 4 0
Pembroke	4	11 7 0
Oliver's Ore	1	8 17 0
South Crenver	4	5 10 0
Michell's Ore	1	4 19 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Vivian and Sons	5423	£33,654 15 8
Freeman and Co.	2448	14,109 3 0
Grenfell and Sons	8645	22,236 8 0
Hims, Williams, and Co.	4974	25,574 13 0
Williams, Foster, and Co.	4974	33,569 7 0
Mason and Elkington	3740	17,552 5 4
Bankart and Sons	1047	4,164 14 0
Copper Miners' Company	2670	12,241 6 4
Charles Lambert	3963	13,900 18 6
Newton, Kates, and Co.	914	5,133 7 6
Sweetland, Tuttle, and Co.	2190	6,364 2 5
Pencaldd Copper Co.	511	3,058 12 3
Total	37,395	£189,559 13 6

A petition for the winding-up of the North Wheal Vor Mining Company is to be heard in the Stannaries Court on Tuesday next.

Mining Correspondence.

BRITISH MINES.

ABERDEEY.—A. Ede, July 10: We are at present breaking a little lead from an old stope in back of the 22, about 30 fms. north of the engine-shaft. We have 4 tons of lead ore ready for market. The farmers being busy about the hay, I cannot get the carriers to take it to Aberdeen.

BEDFORD CONSOLS.—J. Mitchell, July 19: The middle adit level has been extended east on the north lode up to the present date 24 fathoms, on a lode varying from 15 in. to 2 ft. wide, which has shown signs of improvement in places, containing spar, muddle, prinn, white iron, lead, and good stones of ore have been occasionally met with. The lode in the end is at present in a disordered state. About 15 fathoms behind the end a part of the lode went off in a south-east direction, which contained spar, muddle, a little tin, and good stones of copper ore, and a great deal of water is coming from the ground around this point; this part of the lode will be met with again in cross-cutting towards the tin lode. We have intersected a small slide during the past quarter, but as yet have not met with the cross-course seen in the level above, west of the shaft, consequently it must underlie east much faster than when seen in the upper level; I would, therefore, recommend to drive on the present course some 10 or 12 fathoms further, and if the cross-course is not met with by that time, then commence cross-cutting to the side lodes, referred to in my report for the last meeting.

BILLINS.—F. Evans, July 20: We are sinking the engine-shaft below the 70 with all the speed possible; it is now 2 1/2 fathoms below that level, and the lode is getting larger, with spots of lead ore in it. The 70 east is producing saving work for lead; driving in a promising lode, at 57 per fathom. The 70 west continues to produce good stones of lead; at present the lode in the forebore is rather small, but in the roof behind there is a very good lode, worth full 2 tons per fm.; the end is driving at 31, 10s., and the stope behind is at 17, 10s. per fm.

BOSCAWEN.—J. Edwards, R. Giles, July 16: The lode in the 80, driving west of Hunter's shaft, is 2 in. wide, with spots of copper ore, but not to value. The lode in the 70, west of said shaft, is unproductive. The south lode in the 70, driving east of Hunter's shaft, is 20 in. wide, producing good stones of ore. The stope in the back of this level, west of said shaft, is worth 182 per fm. The lode in the 60 west is 2 feet wide, worth 41 per fm. The lode in the winze sinking below the 50, west of Hunter's shaft, is worth full 122 per fm. for copper ore. The lode in the 30 fm. level, east of caunter shaft, is unproductive.

BOTTLE HILLS.—Joseph Eddy, July 19: Robert's Lode: The lode in the 17, east of Stode's shaft, is at present disordered, consequently not producing so much tin as it has for some time past, and I think, by the appearance of the lode, that it will soon resume its former character, and again improve in quality. —South Lode: This lode, in the 13 east of shaft, is still small and poor. —Main Lode: The stope in back of the 13, west of Williams's shaft, are still producing good stamps' work. I am sorry to say our water for drawing and stamping is still very short; I was hoping by this time to have been able to promise you another sampling, but I cannot say anything about it for the present, as I have no hope of an increase of water for stamping before the weather changes.

BRYNTAIL.—J. Roach, July 21: The engine-shaft is 8 fms. under the 20 fm. level. This week we fixed two sets of timber, and I think it will require about three weeks to accomplish the sinking, when we shall at once drive a 30 fm. level east and west on the course of the lode. —Ti Lode in the 20 east is wide, 4 feet of which we are carrying consists of barytes, carbonate of lime, and cupel, spotted with lead ore, is yielding good stones of ore. We have taken the water and rubbish out of the winze under the 20, on the south part of the lode, and have resumed sinking; the appearance and value of the lode will state in my next report. The stope on the north part of the lode is just as last reported, producing detached stones of good ore.

BULLER AND BASSET UNITED.—J. Green, July 20: In the 80 west, on south lode, the lode is 4 ft. wide, split up into branches, each producing a little ore, but not enough to value. The 80 cross-cut is progressing favourably. In the 60 west, on engine lode, the lode is 4 ft. wide, much the same in character as last reported—soft spar and prinn: it is letting out a large quantity of water.

CAPLE CORNWALL.—R. P. Goldworthy, July 20: The carpenters are engaged in roofing the counting-house. The masons are building the hot-bath and the flues around the boilers. The engineers are making good progress in erecting the engine. A great portion of our surface work is approaching completion. Our shaftmen are cutting a cistern-plate at the adit, preparatory to fixing the house lift. No change to notice in our tutwork operations.

CLOWANCE WOOD.—E. Chegwain, July 19: In the engine-shaft, sinking below the adit level, the ground is favourable. If the water does not increase more than at present we shall be able to sink 2 or 3 fathoms without a lift. We shall complete the walls of the engine-house on Thursday next, and are preparing the roof to put on at once.

CONNORKEE.—Capt. Bishop, July 16: The 64, west of engine-shaft, is yielding sulphur and a little copper ore. The copper lode in the 54, west of engine-shaft, is producing good stones of ore. An improvement has occurred in the 46, west of engine-shaft, for copper during the week. The yield of sulphur is much the same. The 20, west of new shaft, is not yielding so well as it was last week. The lode in the 18 fm. level ends, east and west of Field's shaft, is very wide, but very little change either for copper or sulphur has taken place during the week. —The 10, East of Kempton's Shaft: The prospects in this eastern and unexplored part of the property are very cheering indeed, and the lode is producing rich stones of copper ore. —The stopes on the great copper and other lodes: On the whole, the various operations here are yielding good copper and sulphur, and an increased yield may be calculated on.

COOLATRA AND BOND (Monaghan, Ireland).—John Sparke, July 4: Being requested by Mr. Molyneux to inspect this mine, I beg to hand you my report thereon, and in doing so I need not trouble you with the length and breadth of the sett, but will simply confine myself to its present position. In the first place, I may state that Mr. Molyneux thought proper to draw my attention to the geological position of the surrounding neighbourhood, which I consider of great importance in a mining district almost in its infancy. Notwithstanding the strata in which the lodes of some of the neighbouring mines are embedded, they are similar to that of the above mine, and, judging from analogy, I see the laws of nature are not confined to Devon and Cornwall alone in producing mineral deposits

the prospects of the mine improved. Carn Camborne shares have advanced from 12s. 6d. to 22s. 6d., and we presume there is some improvement. Clifford Amalgamated, 33 to 34; Cook's Kitchen, 16½ to 17; East Basset, 66 to 68; East Carn Brea, 7½ to 7½. Wheal Crebor, 44s.: the 96 east is now within 9 fms. of the winze, now down from

44 fms., and worth 6 tons of copper ore per fm., or 9 tons for length of mine. The sampling on the 29th will be 120 tons, worth, the agent calculates, at the present standard 600l. East Lovell, 14l; East Rosewarne, 3l; East Russell, 4l; Great Busy, 2l; Great North Down, 5l; Great Rosehill, 3l; Great Ransom, 3l; the carbons in the 130, we are informed, is still looking well, and worth 70l. to 80l. per fm., and extending north and south from the Standard. Great South Tolgus, 2l; Great Wheel Vor, 2l; Hallenbeagle, 4l; to 4l; Marke Valley, 5l; Nangiles, 2l; North Treskerby, 1l; New Birch Tor, 2l; Providence Mines, 4l; South Condurow shares have advanced, and in demand at 15s. to 20s. Bottle Hill, 1l; there is a large accumulation of tinstuff in this mine, which cannot be stamped for want of water. Tincroft, 17l; Wheel Basset, 8l; Wheel Chiverton, 7l; Wheel Margaret, 8l; Wheel Mary Ann, 14l; Wheel Seton, 21l; Wheel Ury, 5l; Great Laxey, 16l; we understand from an official source that the reserves in this mine are estimated at 300,000l., and unless the dressing is interfered with by the want of rain, the profit will be 3000l. a month, if not more, for a long time to come; and the next dividend will be 10s. per share. We understand, also, there are 2500 unallotted shares, and these, if sold at the market price, would give the company 40,000l. (and this would be preferable), or they could be allotted *pro rata* to the present shareholders at par (4l.), and be a good bonus to them. West Chiverton, 65 to 67l; the 80 east, on Valpy's lode, is worth 100l. per fm.; the 80 west, No. 3 winze, 20l. per fm.; the 80 west, on Williams's, 100l. per fathom; the 80 west, on Elizabeth lode, 20l. per fathom. Devon Consols, 570 to 580; a dividend of 10l. per share (10,240l.) has been declared out of profits on March and April ores, leaving 23,554l. 1s. 4d. in hand. At St. Day United Mine meeting the accounts showed a profit of 6647l. 7s. 11d. on four months' working, and a balance in hand of 1753l. 19s. 7d.; Oppie's shaft, sinking below the 184, is worth 50l. per fathom. The pitches and stops are much the same as for some past, but the fall in tin has seriously affected the profits; several breakages, also, it is said, affected the returns, and on the mine and underground there are 25 tons of tin. West Frances, 29 to 31.

On the Stock Exchange business in Mining Shares has been rather more active during the week. The following quotations were officially recorded in British Mining Shares:—East Lovell, 14l; Great Laxey, 16l; Great South Tolgus, 2l; Great Wheel Vor, 2l; Tincroft, 17l; West Chiverton, 65; West Seton, 21l; Wheel Basset, 8l; Devon Consols, 577l; 580; East Grenville, 5l; East Wheel Russell, 5l; North Wheel Basset, 14l. In Colonial and Foreign Mining Shares the prices were:—Scottish Australian, 3l; Yudanamutana, 2l; St. John del Rey, 29l, 31, 30l, 32, 36l, 37l, 36l; Fortuna, 3l, 4l; Cobre, 34l; United Mexican, 5l, 5l, 5l.

The Mining Financial Association, with a capital of 1,000,000l. (of which one-half is to be first issued) in shares of 25l. each, has issued its prospectus. The object of the enterprise is to afford to all classes that security which a large associated capital can alone command, and it is very truly remarked that the principle of spreading money over a great number of risks is even more applicable in mining than in marine and other assurance, and that in all cases where it is acted upon it is well known that the results are certain and highly remunerative. The proposal for the division of risks in mining operations appears to have been first promulgated by Mr. J. Y. Watson, in 1843, and large fortunes have since been realised by those who have acted upon the suggestion thus thrown out. The present undertaking is simply a development of the plan upon a large scale. It is mentioned that financial undertakings applied to speculations yielding much less profit than mining have returned very large dividends, and the gains of the Mining Financial Association ought to be proportionate. A novel feature in the undertaking is that the directors propose to take mining shares in lieu of cash, in payment of the amount due upon allotment, so that those at present embarked in mines may secure the advantage of the distribution of risk principle, without the outlay of any considerable amount of additional cash. The board is an influential one, composed of gentlemen largely interested in mines as investors. The prospectus will be found in another column.

The Wheal Prudence Copper Mining Company, with a capital of 25,000l. in shares of 1l. each, has issued its prospectus, which will be found in another column of this day's Journal. The mines to be worked are held under the Duchy of Cornwall, and situated at St. Agnes, several lodes traversing the north part of the set, being the well-known and productive lodes of Perran St. George and Wheal Leisure; the chief object of the present company is to intersect these lodes at a deeper level. The Perran St. George lodes have produced 700,000l. worth of ores. The set has been favourably reported upon by Capt. Chas. Thomas, of Dolcoath; Nicholas Vivian, late of Condurow; James Pope, of West Basset, and John Daw, of Carn Brea, all of whom concur in regarding it as a more than ordinary mineral investment, and well worthy the attention of capitalists. After alluding to the great value of the Perran St. George lodes, Mr. Edean remarks that there is a cross-cut going out to intersect them, from which the drivings are distant about 20 fms. from the nearest of them; when it is cut it will create a sensation in the mining world of no ordinary character. Capt. Edward Rogers, of Wheal Grylle, writes that as the lode gets deeper it is a very large and strong one, with an immense quantity of muck, and at the two bottom levels copper is forming itself in large quantities. At the surface there is a good 70-in. cylinder pumping-engine, and a new 24-in. winding-engine and capstan. With these appliances, twelve months' further continuous working, with an outlay of about 4000l., will put the mine in a paying state.

The Cornubia Tin Mine is about to be reworked by a limited liability company, with a capital of 36,000l., in shares of 3l. each, the prospectus of which will be found in another column, and a lithographed plan of the works accompanies this day's Journal. The mine has been highly spoken of by Capt. Charles Thomas, John Daw, and Joseph Vivian, and their reports infer that nothing but a further application of capital is required to bring the mine into a dividend state. The direction is an influential one, and a large number of the shares being already subscribed for, little doubt is entertained that the remainder will be speedily appropriated. The machinery on the mine is considered to be efficient and ample for the perfect development of the property. It is mentioned that the surrounding mines have for centuries been notorious throughout the kingdom for their immense riches, and Cornubia being situated in precisely the same channel of ground, there is very little doubt of its proving as productive as any of the mines in its immediate neighbourhood.

The Peninsula Gold Mining and Washing Company is the title of a projected undertaking (the prospectus of which will appear in next week's Journal), with a nominal capital of 100,000l., divided into 2l. shares, half of which has been already subscribed. The object of the company is to purchase and work certain gold quartz mines in Spanish Estremadura, and about 5000 acres of alluvial gold deposits in Portugal, near the village of Rosmaninhal, on the north side of the River Tagus. There are fourteen mines included in the property offered to the company, out of which the company will select as many as it may think proper to work. The railway between Lisbon and Badajoz passes within a few miles of some of the mines. It appears that the gold found in the Portuguese washings is of the purest quality, and it is stated that the quantity is practically unlimited, as large and small pieces of pure gold are constantly picked up by the villagers in the neighbourhood of Rosmaninhal. Mr. W. Morgan Brown (who inspected and reported upon the property for the concessionaires in October last) concludes an elaborate report by stating:—"I may perhaps record my belief, that had this property been in any other country in Europe than Spain, or had it been even in Australia—that land of gold and high-priced labour—nearly every one of these mines would have long since been worked with the enterprise they deserve, and the alluvial district of Rosmaninhal would have yielded its golden produce to an enterprising and industrious race." The purchase-money is 13,000l. in cash, and 16,000 shares in the company, with 1l. per share paid; the said 16,000 shares not to bear a dividend until at least 10 per cent. has been paid to the otherholders. There are no fees payable to promoters, and the purchase-money (29,000l.) is to include all expenses up to the time of the allotment of shares.

The progress during the past week of other undertakings recently introduced, the publication of whose prospectuses has been already announced, is thus reported:—Great Wheel Bonnie shares have been dealt in at 4l. prem., in anticipation of the applications exceeding the number to allot. The Norwegian Copper Mining Company have received a report from Capt. Jewell, which has induced them to decide upon going on with the mines. The staff engaged by the directors of the Frontino and Bolivia Mining Company were expected to arrive at the mines by the beginning

of the present month. The machinery will be ready for shipment in about a fortnight, and the superintendent (Capt. Goyen) proposes proceeding to the mines by the packet which leaves Southampton at the early part of August, and a good remittance of gold is expected by October.

At Truro Ticking, on Thursday, 5503 tons of ore were sold, realising 28,774l. 6s. 6d. The particulars of the sale were:—Average standard, 136l.; average produce, 5l; average price per ton, 5l. 4s. 6d.; quantity of fine copper, 322 tons 18 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
June 30.....	3640	123 11 0	6 1/4	£4 19 0	£78 10 0
July 7.....	3004	123 12 0	7 1/2	6 2 0	85 4 6
14.....	2252	123 13 0	7 3/4	5 10 0	86 8 0
21.....	5503	136 0 0	8 1/2	5 4 6	89 2 0

Compared with the last week's sale, the advance has been in the standard 2l. 10s., and in the price per ton of ore about 3s. 4d. Compared with the corresponding sale of last month, the advance has been in the standard 10l. 10s., and in the price per ton of ore about 11s.

The directors of the Devon Great Consolidated Copper Mining Company, at their board meeting held yesterday, declared a dividend of 10,240l. being 10l. per share, arising from profits on sales of copper ores sampled in the months of March and April last. After payment of the same, there remains in hand a balance of 23,554l. 1s. 4d. in cash, ore bills not at maturity, and reserved fund applicable to the general purposes of the company.

At the West Basset Mine two-monthly meeting, on Wednesday, the accounts showed:—Balance from last meeting, 31l. 4s. 2d.; copper ore sold, 4649l. 10s. 7d.; tin ore sold, 159l. 1s. 7d.; fines, 1l. 5s.; advance on tribute, 3307l. 11s. 4d.;—Cost for April, 1732l. 5s. 9d.; cost for May, 1425l. 1s. 9d.; royalty, 325l. 10s. 8d.; advance on tribute, 3207l. 9d.; boundary cost, 48l. 4s. 10d.; sundries, 17l. 3s. 10d.; leaving balance, 162l. 4s. 9d. A dividend of 1500l. (5s. per share) was declared; and 2l. 4s. 9d. (the balance), and the proceeds of sales of ore not at maturity, amounting to 4420l. 11s. 3d., applicable for the general purposes of the adventure, were carried over to next account.

At the Stray Park Mine meeting, on July 13, the accounts for the four months ending April showed a debit balance of 596l. 16s. 9d. The loss on the four months' working was 630l. 14s. 7d. A call of 10s. per share was made. It was resolved:—That the chief officers of Mr. Francis Trevithick be respectfully requested for obtaining from the Dolcoath adventurers permission to communicate with the Dolcoath workings, and for the use of their man-engine for the purposes of this mine, upon payment of a fair remuneration for such use. The agents having reported that the yield of tin is on the increase, it was thought by the adventurers present that a 10s. per share call to-day, and a 10s. call next account meeting, would clear the cost-book of all the liabilities, with good prospects of a better financial condition after that period.

At Bedford Consols Mine meeting, on Wednesday, the accounts showed a debit balance of 76l. 17s. 6d. A call of 1s. per share was made.

At Wheal Colenso Mining Company, on July 15 (Mr. R. R. Michell in the chair), it was resolved that the mine should be worked on the Cost-book System, with 6000 shares. A call of 1s. per share (3007l.) was made for working the mine. It was determined that the leases on terms of the license—21 years, at 1-20th dues—should be applied for. It appears that the statement of "E. H. (Goldsmith), in last week's Journal, that grey copper had not been discovered as stated is altogether false. The mine has been inspected by Capt. H. James, T. Gill, G. Tremayne, H. Skewis, W. H. Richards, Rogers, of Wheal Grylle, and Mr. John Kendall, of Redruth, who attended (except Capt. Skewis) the meeting, each and all of whom will testify not only that "large masses of rich grey copper ore have been met with at a less depth than 10 fms. from the surface," but that many tons of rich grey copper ore are now and have for weeks been lying near the shaft, open to the inspection of any person desirous of making himself acquainted with the facts connected with one of the most important discoveries made in the Marazion district for many years, the lode being from 3 to 4 feet wide, a splendid gossan lode, in a most congenial metalliferous clay-slate, containing "very large masses of grey copper ore," and worth at places from 20l. to 30l. per fathom, at a depth of 12 fathoms from surface.

At Wheal Emily Henrietta meeting, on Monday, the accounts showed a loss of 473l. 10s. 10d. on the last two months' working. A call of 10s. per share was made.

At the Dale Mine special general meeting, on Tuesday (Mr. Procter in the chair), convened for the purpose of considering the advisability of increasing the capital of the company, it was stated by the secretary (Mr. Dunsford), in reply to a question, that at the last meeting it was computed the next sale of ore would be 30 tons, had not only paid the costs, but had left a profit. Mr. Johnson thought that the lead and blende raised since the last meeting would produce 449l. Upon the proposition from the chair, that the capital of the company be increased from 35,000l. to 40,000l., by the issue of 5000 (1l.) shares at a discount of 12s. 6d. per share, a discussion arose as to the policy of not issuing the new shares at a less discount than 10s. per share. Mr. Johnson remarked that the only condition upon which he would support the proposition was that it could be rejected or non-confirmed at the next special meeting, it being quite possible that the mine would soon open up in the interim that the proposed increase of capital might not be required. It was eventually agreed to adopt the resolution, upon the understanding that the new shares (if any) not taken up by the shareholders should not be offered to the public at the same discount.

THE COPPER TRADE.—Mr. J. Pitcairn-Campbell, of Liverpool, reports:—The past fortnight has been characterized by an active and also speculative demand for both English and foreign copper, and though the smelters have not officially advanced their prices, they have been able to sell pretty freely at 3l. advance; 5l. is now generally asked. Chili bars have advanced to 89l. and 90l., and there is very little left on the market. Chili bars have advanced to 89l. and 90l., and there is very little left on the market. The Chili ore and regulus to be got under 15s. per unit. This change has been produced by the feeling on the part of consumers that copper had reached a price when it was desirable to go pretty freely into stock, more particularly when they saw, from the peculiar way in which the stock of the raw material was held, that the smelters were forced to being further stimulated by the idea that Chili supplies might be interfered with, in consequence of the disturbed relations between the Coast and Spain. The imports into Liverpool and Swansea during the six months ending June 30 has been as follows:—

Same period 1863	1864	Regulus.	Barilla.	Slab.	Equal in fine copper.
41,053	32,150	8,397	682	9252	21,976
11,053	8,926	392	582	21,976	17,429

In the whole of last year they amounted to 31,324, and in 1862 to 40,326 tons of pure copper. The sales since my last have been:—

June 29.—200 tons bars, per "Malda"	255 5 0 per ton.
"30.—100 " bars, to arrive, per "Franky" <td>86 10 0 "</td>	86 10 0 "
"30.—100 " regulus, to arrive, per "Duchess of Lancaster" <td>86 10 0 "</td>	86 10 0 "
"30.—120 " regulus, to arrive, per "Pizarro" <td>0 17 3 per unit.</td>	0 17 3 per unit.
July 1.—390 " regulus, to arrive, per "Scout" <td>0 17 3 "</td>	0 17 3 "
"1.—100 " regulus, per "Miranda" <td>85 0 0 per ton.</td>	85 0 0 per ton.
"2.—100 " regulus, per "Acapulco" <td>85 10 0 "</td>	85 10 0 "
"4.—50 " regulus, to arrive, per "Taco" <td>86 10 0 "</td>	86 10 0 "
"4.—50 " second hands, to arrive in September or October <td>87 0 0 "</td>	87 0 0 "
"5.—40 " regulus, per "Illimani" <td>86 10 0 "</td>	86 10 0 "
"5.—5 " regulus, per "Hayti" <td>86 10 0 "</td>	86 10 0 "
"5.—5 " regulus, per "St. Thomas" <td>87 0 0 "</td>	87 0 0 "
"7.—50 " regulus, per "Acapulco" <td>87 0 0 "</td>	87 0 0 "
"7.—50 " regulus, per "Parish" <td>87 0 0 "</td>	87 0 0 "
"7.—100 " regulus, to arrive, per "Franky" <td>88 0 0 "</td>	88 0 0 "
"8.—25 " regulus, per "Jesse Stowe" <td>89 0 0 "</td>	89 0 0 "
"8.—40 " regulus, per "Duchess of Lancaster" <td>89 0 0 "</td>	89 0 0 "
"8.—50 tons barilla, via "Panama" <td>0 18 2 per unit.</td>	0 18 2 per unit.
"11.—300 " regulus, per "Zohlim" <td>88 0 0 per ton.</td>	88 0 0 per ton.
"11.—60 " regulus, to arrive, per "Vicuna" <td>88 0 0 "</td>	88 0 0 "
"11.—75 " regulus, per "Duchess of Lancaster" <td>89 0 0 "</td>	89 0 0 "
"13.—625 " regulus, at Swansea, per "Atosa" <td>89 0 0 "</td>	89 0 0 "
"13.—550 " regulus, to arrive, per "Florence Nightingale" <td>0 17 3 "</td>	0 17 3 "
"14.—135 " regulus, to arrive, ship or ships <td>90 0 0 per ton.</td>	90 0 0 per ton.
"15.—200 " regulus, second hands <td>88 0 0 "</td>	88 0 0 "

There are no sellers of regulus under 18s.; bars may be quoted at 88l. and 90l.; and barilla, 18s. 9d. and 19s. Arrivals since my last have been:—

Ores.	Regulus.	Barilla.
"Chimborazo"	610	110
"Xanthippe"	415	115

As at present held it is almost difficult to give a correct estimate of the stocks of bar copper which may be available for sale on the market. As near as it can be arrived at, stocks are:—

Ores.	Regulus.	Barilla.
2995	1655	3130

COAL MARKET.—On Monday, the 18 arrivals were nearly all steamers with gas and contract coal. Business was quiet at last prices for all descriptions of coal; best house, 18s. to 18s. 9d.; seconds, 16s. 6d. to 17s. 6d.; Hartley's, 16s. to 17s.; manufacturers', 13s. to 15s. per ton.—On Wednesday, 23 ships arrived. House coals were in demand, at an advance of 3d. per ton. Hartley's and manufacturers' without alteration.—On Friday, 42 arrivals. The demand for house coal was very active at slightly higher prices. No Hartley's for sale; manufacturers' dull, at previous value. Hetton Wallsend, 19s.; South Hetton Wallsend, 19s.; Haswell Wallsend, 18s. 9d.; Hartlepool Wallsend, 18s. 6d.; Stewart's Wallsend, 18s. 6d.; Tees Wallsend, 18s. 6d.; Braddyl's Hetton Wallsend, 18s.; Eden Main, 17s. 3d.; Framwellgate Wallsend, 17s.; Gosforth Wallsend, 16s. 9d.; Harton Wallsend, 16s. 9d.; Hetton Lyons Wallsend, 16s. 9d.; Tunstall Wallsend, 16s. 9d.; Holywell Main, 15s.; Wylam Moor, 15s.; Tanfield Moor, 12s. 9d.; Bute's Tanfield, 12s. 9d.; 2 cargoes unsold; 110 ships at sea.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Laird, Liverpool, we learn that the quantity of coal exported during June was 671,292 tons, against 648,267 tons in the corresponding month of 1863, showing an increase of 23,025 tons. The particulars are:—From the Northern ports, 383,512 tons; Yorkshire, 17,978 tons; Liverpool, 50,602 tons; Severn ports, 186,343 tons; and Scotch, 32,857 tons. The increase was:—Northern ports, 5681 tons; Liverpool, 13,051 tons; Severn ports, 24,434 tons. The decrease was:—Yorkshire, 16,631 tons; Scotch ports, 3510 tons. Total exports from January to June inclusive, 3,794,841 tons: same period last year, 3,485,960 tons—Increase this year, 308,881 tons.

CONTRACTS FOR COAL.—The Admiralty require the supply of 3500 tons of Coal for Jamaica, and 1000 tons for Sierra Leone—one-third of each

to be North of England and two-thirds South Wales Coal.—The South-Eastern Railway also require the supply of 80,000 tons of Coking Coal.

SLATE IN WALES.—POPULAR PREJUDICE.—The St. Beuno's Slate Quarry (Clynnog, near Carnarvon) was commenced a few months since, and has been watched with much interest by many parties connected with quarrying in this part of Wales, on account of the popular opinion which has long prevailed that hitherto no quarry situated south of the Nantlle Lakes, "although on the Bangor range," have been found to pay, notwithstanding the true course, "the disputants declare, must be towards the sea." An adventurer in the above quarry has, however, struck on a pure vein, and is now making slates equal in quality to the Rival Mountains, which is a direct continuation of the Clynnog vein, and does project from impurities, and with a perfect cleavage, well adapted for roofing slates and slabs. This district is worthy inspection, the experiment having opened a new field for enterprise by overcoming popular prejudice.

STEEL SHOT.—Some valuable experiments have been made at Shoburness, by the Iron Plate Committee to test the hardness and general suitability of steel shot supplied by Mr. Krupp, John Brown and Co., Messrs. Sanderson Brothers and Co., and various other makers. The shots were used against 5-in. plates, and Mr. Krupp was the only maker whose shot went through one of these plates. Only one shot did so, however, and, as no other competitor fired against that identical plate, it would be premature to call this a victory for Mr. Krupp. Next to Mr. Krupp's in order of merit, and close upon them in penetration, were those of John Brown and Co., and the difference between the performances being about 50l. per ton, whereas those of Mr. Brown, which are almost as good, are only 30l. All the shots, however, did very well, and showed the necessity for a large supply of these formidable projectiles for both army and navy.

In the official testing of some armour plating in Portchester Creek, on Monday, a very unexpected success was attained with a steel plate, manufactured by Messrs. G. Cammell and Co., of Sheffield, which is likely to revolutionise the whole theory of armour for ships or forts. It was of 4 1/2 in., and received on its surface 12 shots without any damage; the first instance, it was stated, of the successful resistance of steel plates to shot.

Wednesday, Sept. 14, has been fixed as the opening day of the Bath Congress of the British Association; Sir Charles Lyell will preside. The vice-presidents will be Lord Portman, the Marquis of Bath, Messrs. Tite, Way, Dickinson, and Saunders.

Mr. G. P. Lascaridi, of Winchester-house, Old Broad-street, a director of the National Financial Company, has joined the board of the Robertsons Iron Works Company (Limited).

Mr. James Morrison, the originator of the Ferry-hill Ironworks, on the Hartlepool branch of the North-Eastern Railway, near Ferry-hill, has arranged to be the local manager for the new Limited Liability Company into which those works and the Rosedale Mines, Cleveland, have both been absorbed.

The ironworks near Beggar's Bridge, Glazedale, are to be commenced forthwith, and urged on with all convenient speed. Mr. Ramsey, the engineer engaged in the work by the company, is from Messrs. Palmer's extensive ironworks at Jarrow. He is making arrangements for immediately commencing operations; but, until the Castleside or Gromont, the progress of the works must necessarily be principally limited to the mining department. A company with a capital of 30,000l., under the title of "Castle Howard Iron Company," has been formed for working ironstone and erecting the furnaces at that place. The ironstone is described as of a very favourable description. The Earl of Carlisle is a large shareholder, and most of the capital is subscribed.

EAST DYLLIFFE SILVER-LEAD MINING COMPANY (Limited).—SNOW-BROOK SILVER-LEAD MINING COMPANY (Limited).—On July 1 the Vice-Chancellor Stuart ordered the voluntary winding-up of these companies, to take place under the supervision of the Court, upon the petitions presented by Mr. A. Puirbrook, 31, Threadneedle-street, solicitor, for three-fourths of the shareholders respectively.

The Commissioner in Bankruptcy charged with the winding-up of the Cumberland Black Lead Mine Company (Limited) proposes on Saturday next to make a call of 5l. per share on the contributors in class A.

BLACK TIN.				
Sold on the 16th July.				
Mines.	Tons.	q. lbs.	Price per ton.	Amount.
St. Wh. Vor Utd.	47 17	1 13	—	£2133 4 8—
Penhalls	6 7	1 26	—	406 7 0—

COPPER ORES.				
Sold on the 19th July.				
Mines.	Tons.	q. lbs.	Price per ton.	Purchasers.
Parys	150	—	£6 17 6	Mona Co.
ditto	150	—	6 17 6	Sims, Williams, & Co.
ditto	150	—	2 13 0	Mona Co.
ditto	150	—	2 13 0	C. Lambert.

COPPER ORES.

Sampled July 6, and sold at the Royal Hotel, Truro, July 21.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Iron Great Consols ..	146	£6 7 6	New Wheal Martha ..	58	£2 18 6
ditto	138	4 1 6	ditto	49	1 6 6
ditto	129	6 6 0	Hington Down	92	4 6 0
ditto	126	6 3 0	ditto	91	3 18 0
ditto	125	5 17 6	ditto	88	5 4 6
ditto	124	6 13 0	ditto	86	4 4 6
ditto	123	6 0 6	ditto	83	10 8 0
ditto	122	5 17 6	ditto	81	9 15 0
ditto	119	6 7 6	Marke Valley	84	3 0 6
ditto	117	6 18 6	ditto	80	3 8 6
ditto	115	4 3 0	ditto	80	3 7 6
ditto	110	2 12 0	ditto	70	3 16 6
ditto	108	5 16 6	ditto	40	7 16 0
ditto	104	6 0 6	ditto	31	2 14 6
ditto	98	5 3 6	ditto	25	2 6 6
ditto	88	1 5 6	Bedford United	104	4 15 6
ditto	81	4 5 0	ditto	96	4 7 6
ditto	65	14 1 6	Wheal Friendship ..	73	3 13 6
ditto	50	16 14 0	ditto	60	11 11 0
ditto	45	4 11 0	ditto	44	4 8 0
ditto	41	2 7 6	East Russell	63	4 7 0
ditto	39	17 5 6	ditto	48	4 4 6
ditto	16	3 11 6	ditto	52	7 11 6
ditto	15	3 12 6	Wheal Emma	52	2 2 6
ditto	14	3 12 6	ditto	50	3 0 6
Caradon	95	4 19 0	ditto	46	5 2 6
ditto	82	2 7 6	Yarner Mine	118	3 6 6
ditto	81	4 6 6	Creake	56	2 6 0
ditto	80	4 12 0	ditto	50	4 2 6
ditto	74	4 16 6	Bampfyde	101	15 10 6
ditto	60	6 6 0	Gunnis Lake (Clitters).	60	5 16 0
ditto	55	6 11 0	ditto	38	5 16 0
ditto	25	13 0 0	Lady Bertha	50	2 17 6
Wheal Martha ..	88	2 3 6	Wheal Edward	41	2 9 0
ditto	81	1 15 6	ditto	14	6 10 6
ditto	73	1 4 6	Molland	50	5 8 6
ditto	72	2 1 0	Furdon	34	4 10 0
ditto	68	2 2 6	Collacombe	22	6 16 6

WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.,
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.R.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

THE EAST GRENVILLE LODE AND WHEAL GRENVILLE.—We expressed, a fortnight since, a strong opinion that the East Grenville lode, which was approaching the boundary of Grenville, was a most important thing for the latter mine; and on referring to the "Cornish Notes" of 1861, Mr. J. Y. Watson wrote thus from the mine:—"East Grenville: The shaft is down 32 fathoms, and the lode, which has caused considerable excitement for some time past, is worth 15s. per fm. This is the rich South Frances and West Basset disputed lode, and for the depth, everything that can be desired for a rich course of ore." There is but one opinion in the district as to its great promise; and let shareholders remember that West Basset, in the same number of shares, rose to 30l. each, and nothing in that mine, or at South Frances, was more promising at the depth than the lode now in East Grenville. This, our readers must remember, was written by Mr. Watson three years ago. The shaft is now 75 fathoms deep, and the mine turning out just what he stated. Now, mark the following, written at the same time, on WHEAL GRENVILLE:—"Near the boundary of East Grenville (in Grenville sett) a small shaft has been sunk 4 fathoms, and the East Grenville lode cut 2 feet wide, with rich gossan, and quite as good as when cut in East Grenville at the same depth. This is a very important point in Grenville, and adds greatly to its value." This was an opinion expressed in 1861; and having made enquiries about this shaft during the past week, we find that it was sunk 24 fathoms deep, and then stopped by the water; and the tin lode having soon afterwards been discovered, all the attention of the company was devoted to that. This shaft, however, on the East Grenville lode, is to be at once resumed; and the agent tells us every fathom the 65 west is driven in East Grenville assists in draining the shaft, and proves the lode for Grenville. He adds, that from the boundary of East Grenville there is a run on the lode, in Grenville sett, of 70 fms. before it reaches the cross-course. Here, then, are points the value of which can scarcely be over-estimated for WHEAL GRENVILLE—the lode rich within little more than 30 fathoms from the boundary—the same lode cut equally as promising for the depth in Grenville—the shaft down 24 fathoms upon it—and the 65 west in East Grenville draining it.

NAINGLES.—The shaft here has lately been sunk on a poor part of the lode, in order to keep a regular underlie in the skip-road, and the south part is not expected to be seen again until the shaft is down to the 107; this south part, however, seems to be throwing branches into the north part, and has made the part now sinking worth 25s. per fathom.

WEST SETON is looking well; the new shaft is about 5 fathoms under the 90, with a lode worth 80l. to 90l. per fathom. The 100 west is worth 5s. per fathom, within 7 fms. of the shaft, and in three months it will be communicated; when there will be a fine piece of ore ground to take away, and not a ton of ore has yet been taken from it.

DYFFRYN CASTELL.—Some years ago a limited liability company worked this mine, and spent upwards of 5000l. upon it. The prospects were exceedingly good, but the capital having been expended, it was sold in one lot, and for nearly two years has been worked privately by a few influential shareholders, in 25 shares of 100l. each, paid up. The old company worked 10 fathoms below the adit, or 17 fathoms from surface, where the lode was about 20 fathoms wide, with blende in the back, the same as in the productive mines of the district, Lisburne, &c. From 20 to 30 tons of this blende was sold monthly by the old company, at 2l. to 3l. per ton, but the present proprietors have confined themselves solely to sinking the shaft down to the 34, are now cutting through the lode, with very fine prospects, and are within 2 or 3 fms. of being under the productive part of the lode. Blende, also, has risen to 5l. or 6l. per ton, and it is hoped good quantities can be returned at once, though the main object in driving in the 34 is for lead, which in this district is always met with under blende, as copper is generally found under gossan. Of the capital privately subscribed, nearly 400l. is yet unexpended, and the costs under 50l. per month; and when the shareholders undertook to prove the mine in this small number of shares, it was with the view, when proved, of making it into 6000 shares, of 1l. or 2l. each; and they considered the 1-25th (or 100l.) share would then be fairly worth 500l., and this prospect is now improved by the rise in blende; and in a few months, probably, this division of shares will be made. Our object in going into these particulars is to state that 25th shares, of 100l. each, are in our hands to be disposed of, price 100l. (par). The names of the shareholders will be furnished to any intending purchaser. Mr. Theodore Paul, of Aberystwith, the manager, will furnish particulars as to the state of the mine, and these two shares will be sold to the first applicants. We consider we are justified in recommending them as a fair, legitimate, and good speculation, and we will also explain how it is they are offered for sale. It was one of the conditions, at the commencement of this undertaking, that no liability beyond the subscribed capital should be incurred without the consent of all concerned.

THE CHIVERTON DISTRICT.—Some people think, from our remarks a fortnight ago, that we have a prejudice against this district, which is not the case; nor have we any feeling against any bona fide or legitimate speculation in it. We said the district had been overdone, and we may add, the public have been done too, in some instances. One gentleman, who writes us, paid a large sum of money for shares in a mine called after Chiverton and another rich lead mine, and he questions now whether there is, in reality, a mine or a company? We think, therefore, and every one interested in its real welfare will agree with us, that a little ventilation will do the district no harm, considering the enormous sums of money invested in it.

WHEAL CHIVERTON.—We have been disappointed in getting answers to several queries respecting this mine, and must defer our remarks, in consequence, till next week.

GREAT LAXEY.—We have received very important information from these mines, and have special business in the shares.

THE MARKET.—For the state of the market, and the latest quotations of the Mining Exchange, see City Article.

WHEAL PRUDENCE COPPER MINING COMPANY (LIMITED).

Registered under the Joint-Stock Companies Acts, with limited liability.
In St. Agnes, in Cornwall.
Capital £25,000, in 25,000 shares of £1 each.
Of which 17,000 are already subscribed.
Deposit, 5s. per share. Subsequent calls not to exceed 2s. 6d. per share, at intervals of three months.

DIRECTORS.
JOHN BRAY, Hill House, Scarcroft, near Leeds, Railway Contractor.
MATTHEW TODD, Messrs. M. and J. Todd, Bradford, Woolcombers.
WILLIAM HENRY WILKS, Moor Grange, Headingley, near Leeds, Colliery Owner.
ELY JONES, Halifax, Woolstapler.
JOSEPH STOKES, Upper Fountain-street, Leeds, Gentleman.
HANKERS.—Messrs. Beckett and Co., Leeds.
PUNTERS—C. and C. Thomas, Redruth and London.
ENGINEERS—Michell and Jenkin, Redruth.
SECRETARY—Edward Hinde.

REGISTERED OFFICE OF THE COMPANY, —18, EAST PARADE, LEEDS.

The Wheal Prudence Mines, now in operation, are situated at St. Agnes, in Cornwall, within the lands of His Royal Highness the Prince of Wales, in a district renowned from an early period for its metalliferous productiveness, and surrounded by mines which have produced to their proprietors enormous riches.

The lithological features which this set presents are of the most successful character, being at the junction of the granite and clay-slate, the latter stratification being a light coloured schist, precisely analogous to that of the Perran Great St. George, Wheal Leisure, Great Wheal Charlotte, Wheal Basset, and Wheal Music Mines, every one of which realised ample profits; traversed by numerous large and well-defined lodes, two highly congenial elvan courses and five cross-courses intersecting the lodes and elvans at nearly right angles.

Several of the lodes traversing the north part of the set are the well-known and productive lodes of the Perran Great St. George and Wheal Leisure Mines, many of which are visible on the surface, presenting on their backs numerous rich branches and stones of ore.

The great object in resuming these mines was to intersect these lodes, and with that view the present company have erected efficient pumping and winding engines, calculated to carry on mining operations for a long period, and to great depths; have drained the mines, and are now driving out a cross-cut from a deep level to intersect these celebrated and productive lodes. They are also developing the Wheal Prudence lode.

17,000 of the shares are already subscribed for, and the directors are now authorised to issue the remaining 8000, which they can confidently recommend, as they are not asking the public to incur the risks incident to mining—viz., in the drainage of the mines and discovery of ores, as they have already been overcome, and copper ores ascertained to exist, which require only further capital to develop, and in the opinion of the directors render the concern a highly lucrative and permanent investment; in confirmation of which extracts from the *Mining Journal* and from the reports of eminent and distinguished mine agents are annexed.

If no allotment of shares is made the deposit will be returned in full.
Applications for shares to be made to Mr. EDWARD HINDE, 18, East Parade, Leeds, in the form annexed; or to Messrs. C. and C. THOMAS, Redruth, Cornwall.

Extract from *Mining Journal*, Saturday, May 14, 1864.

WHEAL PRUDENCE.—These mines are situated in St. Agnes, Cornwall, at the junction of the granite and clay-slate, and contain, in addition to the Wheal Prudence lode, the lodes of the renowned Great St. George Mines, which returned ores to the value of £700,000. The present company are driving a cross-cut in the 42 fm. level to intersect these lodes, from the first of which the head of the cross-cut is only distant about 20 fms. They also have the Wheal Prudence lode in a cross-cut in the 62, driven from the engine-shaft, where they have a good lode of ore. The containing rock is clay-slate of the white kind, the lodes in which have never failed to be productive in the St. Agnes district. The lodes, too, are associated with elvan courses, running parallel to and dipping with them. Numerous cross-courses also intersect these lodes. In fact, the lithological features of a successful character, rarely combined in one set. There is an effective 70 in. pumping engine at work, calculated to carry the workings to stupendous depths. The rest of the machinery is co-extensive in power with the pumping machinery, and the works have been laid out with a view to permanency, under the direction of Messrs. C. and C. Thomas, of Redruth. The company is incorporated with limited liability, with a capital of £25,000. The registered office is in Leeds, and Mr. Edward Hinde, of that town, is the secretary. The mines are little known at present out of Cornwall and Yorkshire, but merit a great notoriety, which they will suddenly attain on the cross-cut intersecting the Great St. George lode, the driving of which is pushed on with the greatest energy.

Extract from the *Mining Circular* of Mr. ENDEAN, Sharebroker, May 26, 1864.
WHEAL PRUDENCE MINES, ST. AGNES.—The lodes in these mines are a continuation of the Great St. George lodes, which produced £700,000 worth of ores, associated with elvan courses and numerous cross-courses; the mines are in full operation, drained by efficient machinery. There is a cross-cut going out to intersect these lodes, from which the drivings are distant about 20 fms. from the nearest of them. When it is cut it will create a sensation in the mining world of no ordinary character, and the shares command a high rise, probably of £200 or £300 per cent.

EXTRACTS FROM REPORTS.
The sett immediately adjoins the western boundary of the celebrated Perran St. George Mine, which for a long period was exceedingly rich. All the lodes, especially the north lode, are very favourably situated in a geological point of view. The enclosing rock, clay-slate or killas, being of the white kind, highly favourable in the St. Agnes district for the production of copper ores. This killas adjoins the Cligzer granite, and is similar in all respects to that in Perran St. George and the St. Agnes Wheal Leisure Mines, the lodes in each of which have proved immensely rich. From a careful consideration of all the circumstances, and having regard to the present facilities for conducting mining operations, I am of opinion that this mine offers a prospect of success of no ordinary character.
CHARLES THOMAS, Manager of Dolcoath Mines.

On minutely inspecting the geology of the country in which the Wheal Prudence is situated, I have arrived at the conclusion that it is a very interesting piece of mining ground, and wonderful that it has never been explored to a greater extent many years ago. The lodes of the adjoining mine, Perran St. George, traverse this sett, and might be intersected by cross-cuts, in very inexpensive ground, their productiveness in Perran St. George giving much additional value to Wheal Prudence.
NICHOLAS VIVIAN, Late Manager of Condurrow Mines.

The sett contains Wheal Prudence lode, Hanover lode, Good Fortune lode, Way's lode, and Lemon's, and these are intersected by cross-courses and elvan dykes; they are also a continuation of those that were so productive for copper to the east—viz., in Great St. George, Wheal Leisure, and Perran United Mines. These mines returned immense quantities of copper ore, and gave great profits. We consider Wheal Prudence to be more than an ordinary mineral investment, and well worthy the attention of capitalists.
JAMES POPE, Manager of West Basset Mines.
JOHN DAW, Manager of Carn Brea Mines.

Capt. DAW, in a recent report obtained by a shareholder, states to the following effect:—"At this point (the north lode in the 62 fm. level) something good may be met with, as the former workers worked in the bottom of the 62 fm. level, west of the lode. In the bottom of the 62 fathom level the lode has been worked away east and west many fathoms in length, for 3 or 4 fms. deep, so from this we may judge they had a good run of ore ground. In the 40 fm. level a cross-cut is driving north in light slate, congenial for mineral, to intersect lodes which have produced large quantities of ore to the east. I should recommend this cross-cut to be pushed with all speed, as it may lead to important discoveries. After such an outlay has been made, I should recommend this mine to be much further tried, by sinking the shaft and extending the levels."

Capt. EDWARD ROGERS, of Wheal Grylls, in a report to a large shareholder, states to the following effect:—"The fine-sieve lode in the 62 fm. level, under adit, which is 112 fms. from surface, is out to this depth, and the pitwork fixed in a very good and substantial manner, the shaft cast and divided, and put in proper working order for carrying on the mine properly and economically. I find the ancients worked 4 fms. under this level (the 62), which must have been troublesome and expensive, but it shows that they had a rich lode to follow. At the shallow levels the lode is small, showing strings of copper ore; as it gets deeper it is a very large and strong lode, with an immense quantity of muck, and at the two bottom levels copper is forming itself in large quantities. At the surface there is a good 70 in. cylinder pumping engine, and a new 24 in. winding engine and capstan. With these appliances, twelve months' further continuous working, with an outlay of about £4000, will put the mine in a paying state."

FORM OF APPLICATION FOR SHARES.
To the Directors of the Wheal Prudence Copper Mining Company (Limited).
GENTLEMEN,—I request that you will allot me shares in the above-named company, and I agree to accept the same, or any less number that you may allot to me, and I agree to pay the deposit of 5s. per share thereon on request, and all calls duly made according to the rules and regulations of the company.
Name in full.....
Address.....
Signature.....

NORTH WHEAL SETON COPPER MINING COMPANY (LIMITED).

Capital £25,000, in 1000 shares of £25 each.
Deposit, £2 10s. per share.

DIRECTORS.
J. T. FENTON, Esq., Stapleton House, Leeds, Colliery Owner—CHAIRMAN.
JOHN BRAY, Esq., Hill House, Scarcroft, Leeds, Railway Contractor.
THOMAS SCHOLEFIELD, Esq., Ivy House, Leeds, Gentleman.
JOHN ROSEBY, Esq., Haverholme House, Briggs, Lincolnshire, Engineer.
ALFRED TEALE, Esq., Albert Mills, Leeds, Cloth Merchant.
J. W. MARSDEN, Esq., Clay Pit House, Leeds, Ironfounder.
HANKERS.—Messrs. Beckett and Co., Leeds.
MANAGERS—C. and C. Thomas, Redruth, Cornwall.
SECRETARY—G. Simpson, Albion-street, Leeds.
OFFICES.—55, ALBION STREET, LEEDS.

This company is formed for the purpose of working the North Seton Mine, which is situated at Camborne, in Cornwall, the richest district in Europe for copper, and to the west of the celebrated Setons and Tolgus Mines, which have realised immense profits, the West Seton Mine alone having returned in one year £49,000, and still being one of the richest mines in the district.

Shafts have been sunk in this sett, and three promising lodes discovered, two of them from 4 ft. to 5 ft. wide, and the other from 7 ft. to 8 ft. wide.
Applications for shares and prospectuses to be made to Mr. GEORGE SIMPSON, 55, Albion-street, Leeds; and J. P. ENDEAN, 1, Crown-court, London, E.C.

COLORADO MINING AGENCY, OF GIBSON AND DELANY.

OFFICES,—DENVER AND CENTRAL CITIES, COLORADO; and 4 and 6, FINE STREET, NEW YORK CITY.
INFORMATION GIVEN ON ALL COLORADO MINING PROPERTY, EXAMINED, AND REPORTED UPON.
FULLY DEVELOPED MINES FOR SALE.
MINING PROPERTY BOUGHT, SOLD, OR TAKEN ON COMMISSION.
Stockholders and other parties having interests in Colorado mining property can at all times obtain confidential and reliable information to latest dates, as to the value of their investments.

MINING FINANCIAL ASSOCIATION (LIMITED).

Capital £1,000,000, in 40,000 shares of £25 each.
One-half to be first issued.

Deposit, 10s. per share on application; and £3 on allotment.
DIRECTORS.

JAMES BANKS, Esq., Broxbourne, Herts (Director of the General Provident Insurance Company).
Captain FREDERICK CORNER, 32, Broadway-terrace, N.W. (Director of the Glass and Iron Company).
JAMES WILLIAM GUSACK, Esq., 13, Lancaster-gate, W. (Director of the St. David's Gold Mining Company).
WILLIAM GIBSON, Esq., 40, Broad-street-buildings (Director of the Glasgow Iron Ore Company).
JOHN GODWIN, Esq., Lyne Regis.
ST. GEORGE D'ARCY IRVINE, Esq., 3, Charles-street, St. James's (Director of the Tamar, Kit Hill, and Callington Railway Company).
JAMES GEORGE BATHOE LAWRELL, Esq., Union Club, Trafalgar-square (Director of the Accidental Death Insurance Company).
ALBERTO SOARES, Esq. (Messrs. M. J. and A. Soares), 40, Seething-lane (Director of the Wallachian Petroleum Company).
(With power to add to their number).
BANKERS.—The Metropolitan and Provincial Bank, 75, Cornhill.
SOLICITORS.—Messrs. Pattison and Wig, 50, Lombard-street.
AUDITORS.—Messrs. Johnstone, Cooper, Wintle, and Co., Lothbury.
SECRETARY (pro tem.)—Mr. John Henry Jarvis.
TEMPORARY OFFICES.—No. 32, WALBROOK, LONDON.

PROSPECTUS.

The object of this association is to facilitate legitimate mining, quarrying, and other mineral enterprises of every description, and to offer to all classes that security in such investments which a large associated capital can alone command, for the principle of spreading money over a great number of risks is even more applicable here than in marine and other assurances, and in all cases where it is acted upon it is well known that the results are certain and highly remunerative.

The association will buy, sell, and advance upon shares and other interests in mineral property; and its operations will be conducted under experienced management. Financial undertakings, applied to other speculations, yielding much less profit than mining, have returned very large dividends, and the gains of the Mining Financial Association (Limited) ought to be proportionate.

The deposit upon application must in all cases be paid in cash; but, for the convenience of capitalists already engaged in mining enterprise, the shares of any working mining or mineral company whatever, including quarries and other works, will, if approved, be accepted in lieu of cash, in payment of the amount due on allotment, as well as of one or more future calls, upon conditions to be arranged according to the circumstances of each case.

Shares thus accepted will be dealt with under the heads of shares in "Dividend Paying Mines or Works," "Cost Paying Mines or Works," and "Progressive Mines or Works," and the shares of the Mining Financial Association exchanged for these will represent only such a percentage paid up as the position and prospects of the respective mines or works may justify.

No shares will be liable for calls whilst any other shares, with a smaller amount called on them, are in circulation. It is considered that it will not be necessary to call more than £15 per share in the aggregate; the remaining £10 per share will provide, to those dealing with the association, a guarantee for its stability.

Shareholders will rank, in respect of dividends, according to the amount paid per share. In the event of no allotment being made the deposits will be returned in full. Forms of application for shares, and all further particulars, may be obtained at the temporary offices of the association, or of the brokers.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Mining Financial Association (Limited).
Having paid to the Metropolitan and Provincial Bank to your credit the sum of £ per share in the above association, and I hereby undertake to accept the same, or any less number that may be allotted to me, and that this shall be my authority to enter my name in the Register of shareholders for the same.
Name.....
Address.....
Date..... Profession or business.....

CORNUBIA TIN MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, which limits the liability of each shareholder to the amount of his shares.
Capital £36,000, in 12,000 shares of £3 each. Deposit, 5s. per share on application and 10s. on allotment.
Should no allotment be made the deposit will be returned in full.

DIRECTORS.
Sir RANDAL HOWLAND ROBERTS, Bart., Westbourne Park, Baywater, London.
BENJAMIN W. WELLES, Esq., 2, Albert-terrace, Regent's Park, London (Chairman of the Life, Investment, Mortgage, and Insurance Company).
JAMES HUMBY, Esq., 43, Moorgate-street, London, and Lead Works, Wells, Somersetshire.
WM. GILLOW, Esq., M.D., Stapleton, Torquay, Devon (Director of the West Basset Tin Mining Company, Limited).
JOHN COTTEILL HARVEY, Esq., Banker, Longton, and Stoke-upon-Trent, Staffordshire.
JOHN WILLIAM CASH, Esq., Leeds.
JOHN NAYLOR, Esq., Caledonian Mount, Leeds.
JOHN WILKS, Esq., Potternewton, Leeds.
(With power to add to their number).

BANKERS.
Barclay, Bevan, and Co., London.
The Leeds and County Banking Company (Limited), Leeds.
SOLICITOR.—John Everard Upton, Esq., 6, John-street, Bedford-row, London, and 6, East Parade, Leeds.
AUDITOR.—John Digby Fowell, Esq., Public Accountant, 3, Park-row, Leeds.
And one to be elected from and by the body of shareholders.
SECRETARY.—G. Lavington, Esq.
SUPERINTENDING AGENT.
Capt. Wm. Nancarrow, East Basset Mine, Redruth, Cornwall.
OFFICES.
20, ST. HELEN'S PLACE, LONDON, E.C.; and 21, PARK ROW, LEEDS.

ABRIDGED PROSPECTUS.

These mines are situated in the county of Cornwall, in the St. Austell district, long celebrated for the production of tin ores of the purest quality. The importance and value of the property is supported by the opinions of Capt. Charles Thomas, of Dolcoath, Capt. Joseph Vivian, of North Roskear, Capt. Daw, of Carn Brea, and Capt. W. Nancarrow, of East Basset Mines.

The sum of £25,000 has been expended during the past three years, in developing the mine to 70 fms. deep, with all the necessary plant and machinery erected for meeting future requirements; consisting of one 50 in. cylinder pumping-engine, with two 11 ton boilers; one double-acting steam stamping-engine, with 32 heads of stamps attached, capable of driving 32 heads more, which are upon the ground ready to be erected; one 30 feet water-wheel with powerful drawing machine, two smaller water-wheels, and stamps; together with 150 fms. of flat-roads, launders, smelters, and carpenter's shops; railways, dressing apparatus, and tin floors, suitable for an extensive mine, which has been purchased, in full working condition, on favourable terms for the present company.

The directors are in possession of the best opinions from practical men as to the value of the property, and being fully impressed with its great value, and the profitable results which must flow from an efficient working, offer the remaining 6500 shares to the public, with a conviction that such an opportunity for the profitable investment of capital is rarely presented. The delay and risk attendant upon erecting extensive machinery and unwinding deep mines is in this instance avoided, as the mine is now in an efficient state of working. Judging from the analogy, satisfactory results may with confidence be looked for, as the adjoining mine returned enormous profits from one tin lode only, at the 90. Cornubia is already down to the 70, and preparing to sink deeper; the lodes, six in number, are embedded in a fine channel of tin-bearing strata, large and well defined, varying from 6 to 12 ft. wide, warranting the expectation of profits at an early date.

A considerable portion of the shares have been privately subscribed, and the directors will proceed to allot the same as soon as they deem a sufficient number applied for. This undertaking may be classed among those that are deservedly called investments. The large amount of work done, the expensive, valuable, and powerful machinery upon the mine, the rich discoveries already made (six large lodes being operated upon), and the fact that the tin sold from Cornubia invariably realises the highest price in the market are all evidences of its great commercial value, and afford one of the strongest proofs that early profits may be calculated upon.

Detailed prospectus, plans of the mine, and form of application for shares may be obtained of the solicitor, secretary, or at the offices of the company.

SOUTH SAINT IVES TIN AND COPPER MINING COMPANY (LIMITED).

To be incorporated with limited liability.
Capital £15,000, divided into 6000 shares, of £2 10s. each.
Deposit 5s. per share on application, and 10s. per share on allotment.
No further call will be made for six months.

DIRECTORS.
The Hon. G. R. GIFFORD, Littleton, Chertsey, Surrey.
JOHN PHILLIPS, Esq., Charlton House, near Cheltenham.
EUGENE WARDROPER, Esq., Woodrose Hall, near Huddersfield.
BANKERS.
London..... Messrs. Roberts, Lubbock, and Co., Lombard-street, E.C.
"..... Messrs. Ransom and Co., Pall Mall, S.W.
Cornwall..... Messrs. Bolitho and Sons, Penzance.
ENGINEER.—Mr. W. H. Gray, St. Austell, Cornwall.
SECRETARY.—Mr. Henry Chapman.
OFFICES.—68, OLD BROAD STREET, E.C.

ABRIDGED PROSPECTUS.
This company has been formed to work a valuable piece of mineral property in the St. Ives mining district, Cornwall, which has been carefully inspected by Capt. J. Nancarrow, M. George, R. Martin, J. Bryant, J. Daw, C. Thomas, and J. Vivian, all of whom describe its locality and geological character to be most promising, the St. Ives Consols cross lodes and cross-courses running through its entire length, and intersecting the lodes, thus giving good promise of one or more of those rich carbonaceous which have been so long highly profitable to the proprietors of that mine, which has produced upwards of £800,000 worth of tin.

The directors have purchased the sett for £5000; £3000 in cash, and £2000 in fully paid-up shares. The leases are for 21 years, at the very low rate of 1-21st part royalty, and it is confidently expected by the most competent judges that an outlay of from £2000 to £3000 will produce a liberal dividend.

A considerable portion of the shares have been already subscribed for, and the directors, who are each required to hold 100 shares, offer to the public those remaining, with a conviction that such an opportunity for the profitable investment of capital is rarely presented.

After payment of 10s. per share on allotment, so much of the balance as may be required will be called for by instalments of 5s. each, at intervals of not less than three months, but no call will be made for six months after allotment; and if no allotment is made the deposit will be returned in full.

Shareholders have the option of paying up their shares in full, receiving interest at the rate of 4s. per cent. per annum on the surplus.

All applications for shares must be made in the usual form to the bankers or to the secretary.

Reports, with prospectuses, forms of application for shares, and plans of the mine, with all other information, may be had at the offices of the company, as above.

DISTILLING HYDROCARBONS.—Some improvements in distilling hydrocarbons from coal shale and other bituminous substances have been provisionally specified by Mr. A. Craig, of Rock Ferry, Birkenhead. The invention consists in distilling off the hydrocarbons from an extended surface in such a manner that the hydrocarbons are made to pass simultaneously, and in the most direct manner, from all parts of such extended surface into a receptacle maintained at a low temperature by the application of a cooling medium, such as cold water or air, in which receptacle the hydrocarbons are, consequently, condensed, the object being to conduct such hydrocarbons as rapidly as possible from the heated receptacle containing the bituminous substances, and to condense them rapidly into the liquid form, in order to preserve them from the deteriorating effect which continued exposure to heat has upon them. He constructs an annular retort, into which the bituminous substance is placed, the outer surface of all of such retort being heated to the required degree for carrying on the process of distillation by any suitable arrangement of pipes and flues, whilst the whole or greater part of the inner wall is provided with a number of small openings, through which the volatilized hydrocarbons pass into the central enclosed space; this space is maintained at a low temperature by the introduction into of pipes, through which cold water or air is continually circulating, and the condens-

tion of the hydrocarbons is thereby effected; they are conducted thence through one or more pipes to any suitable purifying apparatus. Several such retorts may be employed in combination, or they may be arranged separately, and they may be placed in a vertical, inclined, or horizontal direction. The invention is capable of some modification in detail, without departing from the principle.

STEAM FUEL—SUBSTITUTES FOR COAL.

The fallacy of the proposition to employ petroleum as a substitute for coal in the generating of steam daily becomes more evident, notwithstanding the continued efforts which are made to propagate erroneous assertions as to its economy; neither petroleum nor mineral oil of any kind can successfully compete with coal as a steam fuel until coal is twelve times more costly than at present, or until petroleum can be sold retail at less than 3d. per gallon. The objection applies equally to natural and artificial oils, although, in the latter case, the cost which would necessarily be incurred in its manufacture would render its employment so much the more disadvantageous. From time to time attempts have been made to utilise the products of the Pitch Lake of Trinidad, by employing the products that are obtainable from it by distillation, but hitherto the results have been anything but satisfactory; yet, amongst the more recent opinions published is that of Dr. Konrad Stollmeyer, of Port of Spain, in which he advocates the use of crude oil from Trinidad pitch, but he has evidently been guided only by the interest of Trinidad in making his assertions, and is altogether unsupported by either practical results or experiments. He maintains that liquid fuel, such as oil, whether vegetable or mineral, whenever or wherever obtainable at a price not exceeding twice the cost of coal—for a quantity equal in power for evaporating water to a given quantity of oil—is preferable to coals for oceanic steam navigation for various reasons. He considers that there would be a saving of space and weight, because 40 gallons of crude oil from asphalt are considered equal to 1 ton of coals. As the oil varies in density and power, it would be quite safe, he thinks, to take, for practical application on a large scale, 50 gallons of crude oil, average specific gravity 0.900, as an equivalent to 1 ton of such coals as are usually supplied to steam-vessels, though experiments in the laboratory point to a lesser quantity. This would reduce the weight of the necessary fuel for a sea voyage to one-sixth. By constructing tanks with reference to the shape of the vessel, the necessary space required would be reduced to one-fourth. Now, even assuming Dr. Stollmeyer to be correct in his proportions, it must be remembered that he makes no mention of the first cost of the tanks, which would be large, nor of the expense of keeping them in repair.

The accuracy of his next assertion it is unnecessary to question, since the advantage is more imaginary than real; he states that the time in taking in fuel at ports of departure and intermediate stations would be reduced to about one-tenth—oil instead of coaling. One hour would be sufficient to deliver, through suitable pipes, a quantity of oil equal to coals which would require ten hours to take on board; he considers, moreover, that the number of men necessary to attend to the fires could be reduced to one-fifth, and that their labour would be comparatively easy. This may be true, but the labour saved at the fires would have to be expended in keeping the feeding apparatus in repair. Mr. Stollmeyer states that perfect combustion being possible with liquid fuel, no smoke would issue through the chimneys. This is a theoretical assumption only, and perfect combustion is also possible with all the ingredients of coal capable of producing smoke. He considers there would be less liability to accidents from fire, because spontaneous combustion in the tanks is impossible, but surely he cannot forget that a very slight leakage would soon render the whole ship highly inflammable. He asserts, but we are not acquainted with his authority for stating, that the time required to get up steam would be reduced to one-half, and that from one to two minutes would be sufficient to extinguish the fires. He anticipates that there would be a reduction of space in the fire-room, and probable reduction in the size of boilers. He says a larger quantity of fuel could be kept on hand at foreign stations, or in anticipation of hostilities, when coals and fuel generally for steamers of war might be declared contraband of war, without fear of deterioration in quality. Close tanks and reservoirs would supersede coal-sheds, with their attending inconveniences and liabilities to being fired. Now, it can scarcely be supposed that Dr. Stollmeyer knows so little about mineral oils as to make these statements in ignorance. The deterioration of mineral oils is three times that of coal, and as to the tanks being more exempt from damage from fire than the coal-sheds, the accuracy or inaccuracy of the assertion would depend entirely upon the material of which they are made—made of the same material, the advantage would be altogether on the side of coal.

So many objections to the use of petroleum as a substitute for coal existing, it is scarcely necessary to consider Dr. Stollmeyer's remarks upon its application and supply, except, perhaps, to show that his opinions upon this portion of the subject are equally vague and unsatisfactory. He states that there are various modes by which the liquid fuel could be applied. In the beginning, before the present construction of boilers, fire-rooms, &c., can be modified and properly adapted to a new material, which is like all new contrivances, a matter of gradual development, it might be used as an auxiliary to coals. Jets of liquid fuel, finely divided by a rose, similar to the ends of watering pots, could be thrown at intervals of a few seconds, by means of a force-pump, over the burning mass. The coals would absorb the oil and would transform it into flame without falling into ashes. Later, upright tubular boilers would replace the present horizontal boilers. Each tube would have its separate fire (lamp), the tube acting as the chimney, similar to the chimneys of the kerosine and other mineral oil lamps. He considers that the ingenuity of mechanical engineers would soon establish a simple, effective, and almost self-acting mode to supply the liquid fuel as fast, and no faster, than it could be converted into flame; and he continues that the next question would be the supply, since it is of little use to invent applications for a material, if that material is not almost inexhaustible for practical purposes. Without taking into consideration the fact that oil can be extracted from coals if all other resources were exhausted, the discovery of the oil springs in North America, which have already furnished millions of gallons of crude oil, are likely to keep the supply at a sufficient low rate as to price to make liquid fuel an economical substitute for coals where weight and space are of importance. But even if these oil wells should become dry, and no new ones be discovered—though called oil springs they cannot last like springs of water, but must have a definite quantity, and become dry in time—we have another source of supply in the Island of Trinidad, which, from its vast magnitude, the mass of fuel, flame, and light which it contains, can be justly called the "black Koh-i-noor of the British Empire." We fear that few will follow Dr. Stollmeyer in such a designation, and that a far greater number will avoid the use of the fuel, at least for marine purposes, from the more than ordinary probability that the ship using it will itself become a Koh-i-noor, in so inconvenient a position that from the mountain of light to the valley of death the passage will be certain.

To turn from an opinion based merely upon theory of a most unacceptable kind, by a gentleman whose especial interest it is to secure a sale for an article produced in his own neighbourhood, to that of another who asserts merely that which he has actually proved, we find that no hope whatever can be reasonably entertained of burning petroleum as a steam fuel, at least for many centuries. Dr. R. A. Fisher, of New Haven, Connecticut, has undertaken a series of careful experiments to ascertain the value of petroleum burned by Mr. Hill's method, as compared with anthracite coal for generating steam. By Mr. Hill's process the petroleum is evaporated in a close box, steam is mixed with the vapour, and the vapour is burned as it issues from batswing burners. Dr. Fisher burned petroleum by this plan several hours under a small boiler, and measured the water evaporated. He then burned anthracite coal under the same boiler for four hours and thirty-five minutes, and measured in this case also the water evaporated. The steam was generated under a pressure of 40 lbs. to the square inch, and hence from a temperature of 268°. After making proper allowances for the heating of the water, the results were 7.81 lbs. of water, at 268°, converted into steam by 1 lb. of petroleum; 4.89 lbs. of water at 268°, converted into steam by 1 lb. of coal—or, 2000 lbs. of coal gave the same heating power as 1252.2 lbs. of petroleum.

A result more conclusive than this against the use of petroleum as a steam fuel will, probably, not be required; but it may be well to state that Dr. Fisher calculates that with coal at \$10 per 2000 lbs. (25. 5s. per ton), petroleum of the quality used in the experiments just described, in order to compete with coal, must be furnished at \$10 for 1252.2 lbs. (198.69 gallons), or at 5.02 cents (2½d.) per gallon. But if burned in the apparatus of Mr. G. Hill, it must be furnished at a still lower figure; for while with coal the whole amount of steam generated can be used to drive machinery, in Mr. Hill's apparatus a large proportion of the steam produced is required to assist the combustion of the petroleum. No experiments were made to determine exactly the quantity of steam thus employed, but

from the fact that the coal evaporated but about 4 gallons of water per hour while the petroleum evaporated about 6 gallons, without causing more steam to pass through the safety-valve, we must infer that the steam produced from 2 gallons of the water per hour (or about one-third of the whole amount generated) passed through the steam feeding-pipe into the retort, and thence to the burners. In view of all the facts elicited by these experiments, the conclusion is, that at the present New York prices of petroleum and coal (coal 2½. 2s. per ton, petroleum 2s. per gallon), the cost of fuel in Mr. G. Hill's process, of burning the vapour of petroleum in contact with superheated steam, is about ten times as great as when generating steam with coal.

Dr. Fisher observes, upon the authority of Tate, that the oils (petroleum), as found in nature, contain as nearly as possible an equal number of equivalents of carbon and hydrogen. This would make the composition of crude petroleum nearly identical with oil of turpentine. MM. Favre and Silbermann, in their refined researches already quoted, found the heat evolved by the perfect combustion of 1 lb. of turpentine to be sufficient to raise only 108.52 lbs. of water from 32° to 212°. This, then, is about the maximum calorific power of crude petroleum—11.64 per cent. greater than that of anthracite coal. Therefore, whether the perfect combustion of crude petroleum be effected by burning it directly, or after having converted it into gas; whether it be burned in the state of vapour alone, or mixed with air, or "superheated steam" (as in Mr. Hill's apparatus); or through the mechanical arrangement consists of "a series of corrugated recesses upon a vertical cone of cast-iron placed in the furnace" (as contrived by Messrs. Shaw and Linton), it is impossible to develop a greater calorific power than that with which it has been endowed by Nature—that of heating about 108 times its weight of water from 32° to 212°, a calorific power not quite 12 per cent. greater than that of anthracite coal; it is, therefore, he concludes, fallacious to suppose that at the present relative prices of coal and petroleum this substance, by any "improved method of burning," can be made to generate steam as cheaply as coal. Of the truth of this Science has already convinced those who have faith in her teachings; accurate experiment will in due time convince those who are satisfied only with tangible evidence.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JULY 21.—The coal and other trades continue good for the season, although there is a deal of excitement in connection with the meeting of the Royal Agricultural Society, yet the only holiday at the large works is to be one day during the week. The progress made here by coal-cutting machinery is only slow, still increased interest is taken in the subject. Messrs. Phillipson and Dees, of Cassop Colliery, Durham, have invented a machine of this kind. A suitable framing is made to support a large screw, which works through a screwed nut or block, moving in grooves; to this block a pick or cutter is affixed, and worked by bevil wheels, which cause the screw to revolve. The direction of motion is reversed when necessary by a clutch worked from the main shaft of the machine by eccentrics, or other suitable means. The bevil-wheels receive motion from a pinion-wheel, driven by another wheel and pinion, which are attached to the same shaft. This last-mentioned pinion is driven by a wheel running upon another shaft, to which another pinion is attached; this pinion receives its motion from a bevil-wheel on the main shaft of the machine. One or two fly-wheels may be fixed on the main shaft to assist the working of the machine.

At the Royal Agricultural Society's show at Newcastle a very ingenious and promising invention—the Photogenic Gas Apparatus—which was described some months since in the *Mining Journal*, was shown in the implement yard. The apparatus has been fitted up by Messrs. Mather and Armstrong, of Newcastle. The light given by M. Mongruel's process is tolerably good, but appears to be rather pale; at any rate, it did not appear very brilliant. The photogenic gas is an admixture of atmospheric air with the vapour of the volatile spirit obtained in refining petroleum and similar substances. It is anticipated that the light will be cheap, differing little from the cost of ordinary coal gas, and is remarkably free from any deleterious substance, so that it can in no way affect the health of persons using it. But the most remarkable advantage connected with the process is the small space it occupies, and the very small cost and simplicity of the plant required. It is, therefore, adapted for the use of farmers, and also small private establishments, and there is little doubt it will also be extremely useful for coal and other mines, as the apparatus can be erected underground with the greatest facility, being entirely free from heat. M. Mongruel claims for it that in consequence of the absence of ammoniacal and sulphurous acid vapours, it does not injure the paint, gilding, or furniture of apartments; and that it is innoxious. The apparatus has, however, only been used hitherto to enrich ordinary gas; it is only necessary that the gas, as it leaves the meter, should pass through the carburetor to the burners, in order to acquire an increased illuminating power of from 150 to 400 per cent., while the consumption of the gas itself is diminished by at least one-fourth. These gas carburetors are fitted up to work from three to fifty lights, and upwards, the cost varying from 21. 10s. to 71. 10s. for the number of lights above mentioned.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JULY 21.—The reduction of 20s. per ton in the price of iron has had the effect of sending more orders to the leading makers, and in consequence tending to increase the difficulty of reducing wages. The heat of the weather has operated in the same direction, as puddlers can do but little work with so high a temperature as has prevailed for the last few weeks. The question of wages must shortly be grappled with, as at present rates, and especially if pig-iron should rise, as it will if the demand increases, the trade will not be remunerative. The existing strikes go on, and no signs of accommodation appear. What an outcry would be raised if, from the mutual obstinacy of buyers and sellers, the butter, eggs, and butchers' meat were allowed to become putrid; and yet human labour, and its product capital, are allowed to lose their value by such a dispute; and, as in the case of other things not turned to profitable use, their putrescent sheds around a baneful influence, and physical evils and moral distempers are bred of this artificial arresting of the current of human industry. The question is acquiring increased interest, and labour-saving machines and processes are earnestly looked to.

The elevation to the ancient and honourable office of High Sheriff of Capt. Thorneycroft, only son of the late Mr. G. B. Thorneycroft, the well-known ironmaster, and founder of the eminent firm which bears his name, is one of many recent recognitions of positions recently won by industry, apart from that conferred by hereditary descent. Captain Thorneycroft has declined the pressing wishes of his friends to have a public procession, but, in addition to a most munificent hospitality, he has followed the example of his father, by adding 1000l. to a like amount given by the late Mr. Thorneycroft, as first Mayor of Wolverhampton, for the interest to be annually expended in purchasing blankets and flannels for poor widows. It is gratifying to see wealth earned by honourable industry wearing such ancient honours, and dispensing such noble munificence. The July Assizes have again been free from any mining causes. It would appear as if this formally most prolific source of litigation were getting exhausted.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

JULY 21.—The sudden and unexpected reduction in the price of iron at the last quarterly meetings was a surprise which few expected, but it has had the effect of inducing a larger number of purchases to be made, principally on a speculative demand; and, all matters taken into account, we are in a position to report a continued active trade. There is also a good enquiry for machinery for exportation, and the orders which are given out, and which will require a considerable time to execute, indicate that there will be a continued active demand for some time to come. The steel and cutlery trades are brisk, and, indeed, it is said that all departments of the staple trades of Sheffield are in an improving position. There is an unabated demand for coal, and a ready market is found by most merchants for all that can be got within a given time. This arises from the lock-out of colliers in South Yorkshire, which has prevented the coalowners in that district from being able to execute the orders they had on hand when it took place. It is to be regretted that unpleasant matters have taken place in the Barnsley district, not between the lock-outs and those who are designated "black sheep," but by idle mobs of persons who congregate there. A newly-imported lot of miners have been introduced at the Oaks Pit, and it has been the business of some who by their acts have little sympathy with those who are locked-out. Several of the persons who have caused the disturbances have been apprehended, and some half-dozen persons committed for periods extending from seven days to one month, each with hard labour. A number of the families of the men locked-out are still living under canvass at Hoyle Mill, in great privation. The delegates are still out in various parts of the country, soliciting aid from different trades, which is, on the whole, cheerfully rendered; and it would appear to be the determination of the lock-outs not to give way till they get their claims from the masters, who, on the other hand, are equally determined not to give way to the demands of the colliers, if labour can be had at any price from the other colliery districts. The present state of affairs is truly

awful, and what the result will be in the end it is difficult to imagine, and, indeed, no one can possibly foretell. There is the strongest determination by each party not to give way, and the question is now really reduced to one of funds—namely, whether the purses of the masters can effectually combat with the aid received from all country organised trade societies, and thus obtain the mastery. The battle is fierce, and the struggle fearfully terrible.

We have nothing to notice connected with the lead mines this week. Speculation in shares is almost at a stand-still.

REPORT FROM MONMOUTH AND SOUTH WALES.

JULY 21.—The Iron Trade of the district is in rather an unsettled state, owing principally to the want of unanimity in the Staffordshire trade. As long as a fair demand, however, exists Welsh iron will not be much affected by the reduction; and should the new American tariff be a little less prohibitive than the last, there is no doubt that the shipments to New York will be considerable during the next few months. Steam coal commands a moderate enquiry, but prices show a downward tendency, and buyers are able to enter into contracts on more favourable terms than has been the case for a long time. House coal and coke remain without any material alteration, and merchants have an average number of orders in hand. The Tin-plate Trade continues to suffer from the falling-off in the American demand, and the current quotations are with difficulty maintained. Scarcity of water has become so general at the various works of the district, that hundreds of hands are already on short time, and matters will soon be in a worse state unless a copious fall of rain should take place. At several establishments where water-power is extensively used, not half the usual quantity of work has been turned out during the last month, in consequence of the want of water.

The Brecon and Merthyr Company have been successful in obtaining their bill for the construction of the Ystrad branch, and for running powers over the Aberdare branch of the Great Western. When the powers contained in this bill are carried out, Newport will then be placed in equally as advantageous a position as Cardiff for the shipment of Aberdare coal.

At the Narberth Petty Sessions, on Thursday, Thomas Cole and Thomas Handcock were summoned for a breach of colliery rules, by opening their safety-lamps, thereby endangering their own as well as their fellow-workmen's lives. The defendants were employed at the Bonville's Court Colliery, and the complaint was preferred by Mr. John Phillips, the overman. The case being fully proved, the magistrates expressed an opinion that defendants had been guilty of such a serious infraction of the law that they did not feel justified in inflicting a fine. Defendants were accordingly committed for three months, with hard labour.

Millford Haven is gradually emerging from the commercial isolation which has long characterised the port. The bills for the construction of docks at New Millford and Hubberton have received the assent of both Houses of Parliament, and it is contemplated to establish several iron shipbuilding yards. Messrs. Watson and Womersley have already commenced to convert the old dockyard into iron shipbuilding establishment, and other capitalists have expressed their intention of following the example. This shows that the unequalled natural advantages of the harbour are beginning to be appreciated by the commercial community, and there is no doubt that good times are not far distant for Millford.

The Pembroke and Tenby Railway has been completed to Pembroke Dock, and the line will be opened for both passenger and mineral traffic immediately the Board of Trade Inspector's certificate has been obtained. The case of the Government Inspector against the proprietor of the Risca Colliery, which has excited much interest in the district, has been decided against the Inspector, the magistrates upon the bench being the Rev. T. Pope, Captain Phillips, R.N., Mr. Gratrec, and Mr. John James. The award which it was sought to enforce ordered the erection of furnaces, to be used as a substitute for the smelter then in use, and the said furnaces having been erected the bench considered that the award had been complied with, and that it was unnecessary that the furnaces should be lighted until an explosion of sufficient force to blow away the present mechanical ventilator, or at least disable it, shall occur. The furnaces may then be lighted, should it be considered advisable to make attempts to rescue any men that may be entombed in the pit. The magistrates, after a few minutes consultation, pronounced a decision in accordance with this opinion, and dismissed the case.

SWANSEA.—There is little improvement to report in the state of trade, which remains dull and sluggish in all branches. The several new railways in the district are being pushed forward vigorously. The Harbour Trustees have closed an agreement with Mr. Abernethy, to furnish the plans, drawings, &c., of the new works for the harbour, and generally to supervise the works as engineer-in-chief, for a commission of 2½ per cent. on the outlay. The trustees have also accepted a tender from the Messrs. Bachor Brothers, timber merchants, of Cardiff, for the supply of the timber required, and the works will shortly commence, a sub-committee being appointed to deal with the question of the purchase of the land required. On Thursday last Mr. Joseph Jennings, of the Arsenic Works, Burrows, was summoned for non-payment of poor-rates. Mr. Jennings showed that he had been rated at 10l. per furnace, on seven furnaces, previous to the new assessment, and that now the authorities very modestly asked him for nearly 200l. What next? It was thought there was some mistake, and the case was adjourned for the committee to look into it. I may add that there is a considerable amount of dissatisfaction amongst the proprietors of the large works at the result of the new assessment, and, in some cases, not without cause. The adjourned inquiry to investigate the cause of the death of the three men who were killed by foul air in an old pit belonging to Mr. A. Sterry, near Sketty, took place on Friday evening, and resulting in an open verdict, the men alone being blameable in the matter. One of the workmen in the employ of Messrs. Gilbertson, of the Pontardawe Tin Works, was summoned to the Police Court, on Monday, for having left his work without giving proper notice. Mr. J. R. Tripp, solicitor, on behalf of the prosecutors, withdrew the charge, and the case was dismissed. The joiners' strike is at an end, the masters having agreed to give the increase of 3s. per week asked for by the men.

The arrivals at Swansea include—Queen of the Lake, from Antwerp, with 160 tons of pig-iron; Fanny, from Dorset, with 165 tons of pig-iron; Maid of the Yare, from Antwerp, with 177 tons of pig-iron—each for Mr. W. H. Forrester; Lily, from Bilbao, with 206 tons of iron ore, for Mr. R. Cowell; Navigator, from Cherbourg, with 170 tons of iron ore, to order.

POSTNEWNYDD IRONWORKS.—(From a Correspondent).—Since the starting of these works by the new company, there have been several breakages in the machinery of a serious character, and this has led to some disagreements amongst the proprietary. It is expected that the company will be wound-up by the consent of all parties, and the works will then, very probably, fall into the hands of one or two wealthy capitalists.

SOUTH WALES INSTITUTE OF ENGINEERS.

[Continued from last week's Journal.]

MULTIPLE DRILLING FOR RIVETTED BOILERS, GIRDERS, AND OTHER WROUGHT-IRON WORK.

MR. H. M. MAYNARD read an interesting paper on this subject, in which he states that the fact of drilled rivetted work being superior to punched rivetted work is now becoming generally understood, and is making a great revolution in most of the engineering factories of this country. For the purpose of illustrating the paper, Mr. Maynard exhibited specimens of drilled and punched rivetting, which had been planned through the rows of rivets, to show what takes place. They showed that in punching the holes are left with a certain amount of taper, which necessarily takes place to a greater or less extent in all punched holes, and inaccuracy also occurs through the puncher not being able to have perfect control over a heavy plate, and although somewhat improved by ryming, it seldom happens that the rivets perfectly fill, touching only at intervals, and leaving some plates altogether depending on the friction caused by shrinkage of such rivets in cooling, and when a shearing strain comes upon them they are apt to get loose. Messrs. Kennard's Movable Spindle Multiple Drilling Machine was then explained by means of the illustrations. In punching holes through a plate or bar, it may be easily seen, on examining the surrounding part of the hole, a certain amount of distortion takes place in the fibres of the iron, indenting it on the top, or leaving the surface concave, while at the same time nearly a corresponding amount of convexity is produced on the opposite side, so that after punching, when two or more plates are put together, they do not lie flat, or close to each other, and require a considerable amount of flattening by hammer or some other means, and this disturbance of the fibres necessarily weakens the iron to a great extent. In illustration of this, an experiment by testing four plates, two of drilled and two of punched, was referred to. The holes were drilled in two of them, and punched in the other two; each was broken separately by the use of a lever testing machine. The sectional area was reduced at the part broken 1½ inch, being exactly the same in each case, and the results showed a mean of 19 per cent. in favour of the drilled holes, and, assuming these experiments to be correct, it will ultimately be proved in practice 100 tons of drilled rivetted work will be made to do the duty of 119 tons of punched rivetted work, particularly when the iron is strained in tension, as in the shell of a boiler, the bottom of a girder, &c. Very much of the cost of drilled work depends upon the arrangement of the detailed drawings of the work, in which the contractor who is to do the drilling should be consulted, so as to suit the work to the patterns of his machines, and avoid expense in making them. It would be difficult at the present time to give any very accurate idea of the cost of drilled work. The extra cost is preponderated by the superior work it makes, the truth of which is so complete that a number of plates are put together indiscriminately, and four turned pins passed through the corner holes, when the lot is put on a planing machine, and the sides and ends planed to gauges. The holes fit so accurately that a pin 1 inch diameter can be driven through the lot at any hole with a light hand-hammer. Messrs. Kennard's Multiple Drilling Machines, before referred to, were designed for the purpose of drilling the plates and bars required in the main girders forming the Blackfriars-bridge; and as the bridge has to carry four lines of railway, being constructed of steel of very great strength; the flanges of them are, therefore, being constructed of as many as six thicknesses of ¾-in. plates, besides six rows of 5-inch angle iron rivetted through, so as to form one plate, 4 ft. 6 in. wide, of great strength and soundness; hence the necessity that the holes in the several plates should correspond with perfect accuracy. The girders are formed on the double lattice principle, each lattice bar being intersected by others at four places, crossing at an angle of 60°. The pattern of the lattice bars varies according to the strain they have to bear, and the pattern of holes for rivetting these bars also vary, on the same principle. From this it will be seen that a great variety of patterns of holes is required, and that Messrs. Kennard have, in fact, to do, probably, the most difficult piece of drilling that has hitherto been done. In consequence of the difficult nature of the work, they have found it necessary to remove heavy plates to as many as six or seven different multiple drilling machines, in order to produce the required pattern, and the expense of lifting the plates about was found to be more than that of drilling them. The space of time in which the whole of the girder

of this large bridge (weighing more than 2600 tons), and the powerful machinery for drilling them have to be made, is less than 12 months.

The PRESIDENT (Mr. A. Bassett) said it seemed to him that the weight of material was an important consideration, and from the paper of Mr. Maynard it appeared there was 19 per cent. in favour of drilled as compared with punched work. In point of fact, this was that 100 tons of drilled rivetted work was equal to 119 tons of punched work. He should like Mr. Maynard could give them the relative cost.

Mr. N. SCOTT RUSSELL said there was generally a disposition on the part of inventors and others to push a good thing too far, and he believed such was the case to some extent in the present instance. He was decidedly of opinion that they ought not to substitute drilling for punching in all kinds of work, especially where the cost of the material was not so great. As a rule, iron could be as well punched as drilled. Mr. Russell pointed out a successful plan of punching the holes which his father (Mr. Scott Russell) had described in the *Great Eastern*, and it was now carried out at Lloyd's and other places. Where these plates were large, and many were placed side by side, he admitted that drilling was then preferable.

Mr. MAYNARD, in reply, said that where the work varied much, and the pieces were small, punching would then, perhaps, be found more convenient. He saw no difficulty, however, in making a machine suitable for every description of work. As to the relative cost, it was difficult as yet to form a correct estimate. If they had a piece of work where there was a variety of work it was difficult to form an estimate in the price. Where there was more extensively adopted before the cost was made, and the drilling principle must be more extensively adopted before the cost was made. No doubt that punching affected the fibres of the iron, and rendered it of less strength, whereas drilling had no influence on the surrounding parts. Since the paper he had made experiments on a number of plates rivetted, and he found that, so far as the rivets were concerned, the advantage was rather in favour of punching. He attributed this to the action of the sharp edges of the plate on the rivets.

Mr. JAMES MURPHY thought the question at issue was not whether punching or drilling was the best method, but whether a continuation of the principle of drilling by placing a number of plates side by side was not preferable to punching. He remembered that Sir John McNeill invented something on the same principle as the machine referred to in the paper, for the purpose of drilling railway sleepers four at a time. The late Mr. Brunel paid great attention to the matter, and he was decidedly in favour of drilling. Mr. Maynard said in his paper that there was considerable difficulty in handling large plates under the punching machine, but he (Mr. Murphy) saw no difficulty whatever. Two men could well manage the largest plates with the assistance of a crane. He believed that formerly punching was considered about one-fourth the cost of drilling, but with the new machine he presumed that the cost would be about the same.

The PRESIDENT said he quite agreed with Mr. Russell that drilling was not suitable in all cases, but he thought there could be little doubt that it was superior for bridge girders and such like work.

THE COPPER SANDS OF ALDERLEY, CHESHIRE.

Mr. BRIDGEN (the secretary pro tem.) read a paper written by Mr. G. C. Greenwell, on this subject, and the same will be discussed at the next meeting. A vote of thanks was unanimously accorded to Mr. Greenwell, for contributing the paper.

MACHINERY USED FOR BORING ARTESIAN WELLS, AND ITS APPLICATION TO MINING PURPOSES.

Mr. MATHER (of the firm of Mather and Platt, Salford Works, near Manchester) having been called upon by the Chairman, proceeded with a lengthy but elaborate paper on the above subject. His interesting remarks were illustrated by means of gigantic diagrams, working models of improved apparatus, and geological specimens, obtained from public works either completed or in progress. He traced the process of boring for water to most remote ages of antiquity, and explained the process from the Chinese system to the improved methods adopted by French engineers. The Chinese is probably the simplest process known, a twisted rope being attached to the chisel, or boring tool (the ancients originally used wood), which struck the rock. For many years this original application had been used in Germany; but it was almost entirely abandoned now in favour of the rod system; and the French had an idea that the appliances used in boring their Artesian well (at a cost of 14,500*l.*) was the perfection of a boring machine. An endeavour had been made at Moscow to find coal, and the best of boring machinery had been employed, at an expense of about 4500*l.*, but after two years' labour, and achieving a depth of 300 ft., no practical results were attained. The "improved" continental system of well-boring is at the best but a tedious affair. The machine he was at this moment explaining was patented in the year 1855, and he claimed for it the name of "the English system." It was simple in its construction, and might be worked by one man—a flat rope and pulley being so easily managed that it might almost be termed a "self-acting" machine. It was not only applicable to well-boring, but might be made of immense advantage in collieries, for air shafts, or for testing the mineral treasures of a country. In 1855, when the present paper was first read to the Society of Arts in London, objections were made to it, and although it was generally admitted to be a great improvement on the old system, it was then thought that it had not fully established its claim to consideration. Since that period it had been successfully employed in working through different strata at Middlesbrough, near Newcastle, where a depth of 1312 ft., had been attained, at an average progress of 3 feet per day, reduced on some occasions to 1 ft. 2 in. per day, on account of the rock through which the cutters had to pass. At Norwich 1184 ft. had been arrived at, the progress being 1 ft. 9 in. per day, against difficulties arising from natural causes. At London, Hull, Bradford, Halifax, Huddersfield, Crewe, Hereford, and other places, several borings have been made, under various geological conditions, with satisfactory results, and the Wardale Iron Company had commenced working one of these machines on June 1. By its means the ordinary strata of any locality might be ascertained, and the mineral riches laid up in the earth accurately marked; as the telescope develops the unseen recesses of Nature, so might this appliance be rendered serviceable, until the unseen blessings of Mother Earth became ensured to ages yet unborn. It might conduce to the benefit of those engaged in mining operations, and afford comfort and safety to men who appeared designed to live in the darkest recesses of the earth. Its advantages would most certainly not be lost sight of in Wales, a country most beneficially blessed with all the mineral products of the earth. Mr. J. MURPHY enquired the cost of working?—Mr. MATHER replied that at Stockport, when working in the red sandstone, the cost had been estimated at 1*l.* 6*d.* per foot.

Mr. MURPHY: Including the cost of the machine?—Mr. MATHER explained that the practice of his firm was to hire the machine at 8*l.* per week, and send it in its destination under the care of an experienced man; the parties requiring it providing labourers, smiths' work, &c. At present he did not bore anything larger than a 2 ft. 6 in. hole, but a machine was now in course of manufacture capable of extension to 3 ft. The principle would be precisely the same as the machine he had already described. In reply to Mr. Maynard, he (Mr. Mather) stated water was necessary to the working of the machine, and the rush of water into the boring apparatus greatly facilitates the entry and rejection of debris.

Mr. J. F. THOMAS (Coleford) enquired whether it could not be made applicable to mines for air—say, 5 feet?—Mr. MATHER replied that he saw no difficulty in increasing it to 5 feet, as the principle of the machine was capable of extension. He thought, however, that if the air-shafts were not made so large they would be found more beneficial: the expense for cutting half-a-dozen smaller holes would be less than for sinking one large shaft.

Mr. EVANS: You merely say you can bore a hole, and leave the application of the machinery with others. You can bore for coal and gold as well as water?—Mr. MATHER: The application of the machine will be better known to mining engineers than to ourselves.

Mr. EVANS: Have you any accidents with the apparatus?—Sometimes the cutters get broken, or ground to pieces, when passing through hard rock, but the knives are easily repaired, and are not costly. The tools can be altered, so as to give a cleaner cutting-edge, according to the strata through which we are boring.

Mr. MURPHY had heard of a system of boring by means of hollow rods, much practised in the South of France, where wells had been sunk through a chalk stratum at very small cost. Mr. MATHER thought Mr. Murphy was alluding to "Vogel's system," had it been perfectly successful, the inventors of the present machinery would not have gone to the expense they had done. "King's system" was much more extensively used on the Continent at present.

The PRESIDENT moved a vote of thanks to Mr. Mather, and trusted that he would attend the next meeting, at Swansea.

Mr. MURPHY seconded the proposition, and remarked that it was one of the most important papers ever brought before the Institute. He hoped, like the President, that they would have Mr. Mather present at the next meeting, and, perhaps, that he would be able to give them some information as to the 3-ft. boring.

Mr. MATHER returned thanks, and said he should be happy at any time to give any information in his power as to the working of the machine.

Votes of thanks were passed to the trustees of the Marquis of Bute, Mr. George Fisher, and others, who exhibited models, &c.; to the Mayor (Mr. John Bird), for the use of the Assembly Room; and to the President, for his able conduct in the chair. After the dinner which followed the business proceedings, the usual loyal toasts were drunk, and the CHAIRMAN (Mr. Alex. Bassett), in proposing "Health and Prosperity to the Mayor and Corporation of Cardiff," expressed the thanks of the South Wales Institution of Engineers for the use of the Town Hall that day. In replying to his own health, the Chairman assured the members that he took pleasure in the success of the Institution, and he would at all times forward the object they had in view. He afterwards proposed the health of those gentlemen who contributed papers to enhance the value of their meetings: but if these papers supplied were not practical, they would be found of very little use. He did not believe that a more practical paper had ever been read than the one they had heard that day on "Boring," for in this part of the country they had not realised any practical results like those they had heard described by Mr. Mather, who had given the fullest information as to the time occupied in the work, and the cost of the engine, in going through the different strata. He had first met with this gentleman at one of the meetings of the Institute of Civil Engineers, and he had liberally responded to an invitation that he would oblige by contributing his valuable paper to the present meeting. He, therefore, begged to couple the name of Mr. Mather with the next toast—"The Contributors of Papers."

Mr. MATHER returned thanks. Whether the Boring Machine he had brought forward would hereafter play a more important part in mining operations in South Wales was a matter of little importance compared with the kindness of the reception he had this day experienced. It was a matter of some importance, perhaps, to those gentlemen who might be engaged in mining speculations, and he trusted that an exchange of ideas might be beneficial in enlarging the free trade of thought, and contribute to the commercial spirit of the time. During the evening Mr. Mather exhibited the magnesium light, the brilliancy of which excited much admiration.

IRISH INDUSTRIAL EXHIBITION.—Messrs. Courtney, Stephens, and Co., of Dublin, largely engaged in engineering works, chiefly connected with railways, and employing over 550 men, exhibit a model of a bridge, 136 ft. span, over the Ovens, carrying the Dublin, Wicklow, and Wexford Railway and the mineral tramway. The bridge is accurately constructed according to the theoretic strength required in every part; the Government Inspector was furnished with the calculated deflection before he tested it, and the result of the experiments confirmed most closely the theoretic deductions. Four bridges of this kind were erected last year, designed by Mr. W. Anderson, a mem-

ber of the firm and honorary secretary of the machinery committee. The exhibition contains a large collection of Calverwell's patent paraffin railway lamps, including a roof lamp just brought out, and the first made for that particular purpose. Mr. Calverwell, who is the manager of the Dublin and Drogheda Railway, has devoted much of his time to bringing paraffin into use in trains in motion, and has successfully overcome the great difficulties caused by the rapid passage through the air.

WROUGHT-IRON TUBES, AND SUBMARINE VESSELS.

The high reputation which has long been enjoyed by the Crown Patent Tube Works (Messrs. James Russell and Sons), at Wednesbury, is well known to the readers of the *Mining Journal*, and that reputation is not likely to be diminished by the extraordinary wrought-iron tubes which the firm is at present manufacturing for the Russian Government. The attention which the Russians are now paying to the obtaining of an efficient and invincible fleet must have been remarked by all; not only has one of the Imperial dockyards on the Neva been adapted to the building of iron-plated vessels of every description, but two powerful vessels, the *Smertch* and the *Ne tron Menyia*, have already been launched; in addition to this, a formidable fleet of invisible monsters, in the shape of submarine vessels of war, will shortly be afloat. It is for the construction of vessels of this latter class that Messrs. James Russell and Sons have undertaken to supply the tubes—the set for the first vessel are already nearly completed, and as the necessary machinery for their manufacture is now in full working order, it may be anticipated that the remainder of the fleet will not long be delayed on Messrs. Russell's account. To afford some idea of the magnitude of the Russian enterprise, it may be stated that the cost of the tubes alone for a single vessel of this submarine fleet will be nearly 9000*l.* It will contain no less than 38 lengths of wrought-iron tubes of 60 ft. each, having a 13-in. bore, and a thickness of $\frac{1}{2}$ in. The specification demands that they shall be capable of bearing a pressure of 2000 lbs. to the square inch, and to avoid all possibility of failure, Messrs. Russell test every tube up to 2500 lbs. The difficulty of manufacturing tubes of this character can scarcely be appreciated by those unacquainted with the use of them, but it may be stated that the order necessitated the erection of new and powerful machinery, which few manufacturers in the country would have been inclined to undertake. It must be particularly gratifying to Messrs. Russell to find that after a thorough enquiry by the Russian agents at the principal works in Manchester, Sheffield, and elsewhere, with a view to obtain the tubes at a less cost than that required by Messrs. Russell, upon their first arrival in this country, about a year since, the unusual facilities possessed at the Crown Works secured their selection, owing to their being able to offer considerably more favourable terms than others.

The submarine boat which these tubes are destined for is of such dimensions that it is estimated that 200 tons of iron and steel will be used in its construction. The cost will, it is calculated, reach 175,000*l.* silver roubles, or 27,000*l.*; and the expenditure of this amount has been authorised by the Emperor. Each vessel is to have engines worked by compressed air, and to have a very strong beak, with provision for attaching large cylinders, charged with powder, to the bottoms of vessels, to be fired by electricity. The parties navigating the vessel will see what they are doing by means of "bull's-eyes," and they will be able to regulate the depth at which they swim, generally keeping quite close to the surface.

COAL MINING IN FRANCE.

Attention has recently been called under this head to the formation by several engineers and coal workers in the mines of the Nord and Mons of an important society for the discovery of coal mines in the Centre of France. With the exception of the North of the Empire, which, since 1847, has been the theatre of sustained researches, the remainder of the French territory—that is, the centre, south and west—has given rise to only a small number of workings. The absence of means of transport, so indispensable to heavy products like coal, has been one of the causes of the small impulse given to the discovery and putting in working of mineral bearings. But since 1852 a network of railways, which will go on multiplying its affluents, has been created, and in a few years its more and more numerous arteries will cover the French soil, uniting centres of consumption to places of production. The development of the demand for mineral combustible, favoured by economic facilities of transport, and the industrial growth of the nation, acquires every year a constantly increasing importance; and, basing the argument upon the remarkable progress which appears in the coal consumption of France from 1844, it will be seen clearly enough that the creation of new mines has become indispensable in a country which every year has to pay foreign nations 4,000,000*l.* for coal, the consumption of which has doubled since 1850, and which will, in all probability, double itself again in the next 15 years. England, Belgium, and Prussia are, of course, less favourably situated naturally for the sale of their coal on French territory than collieries created in the interior of France, which would have no Customs duties to support, and which would also have to sustain less transport rates, an important condition in connection with heavy goods. Of all branches of industry there is, then, perhaps scarcely any one which offers finer probabilities of great profits than the exploration of mines, since the consumption of coal products is almost always assured, while the soil, scarcely touched in many cases, still reveals numerous bearings. Mining discoveries, or explorations for coal, and the obtaining of concessions to be re-sold to capitalists or credit companies, form a distinct speciality; and if collieries have taken in Prussia a considerable stride—indefinitely more considerable than in France, and even than in Belgium—we must attribute this result to these explorations of mines, and to the rational and excellent mode of procedure which creates two distinct specialities—the first of discovery, the second of putting in working. Thus in the interest of France the Government could not too energetically encourage serious attempts at new discoveries of combustible.

It is to the explorations which brought about the discovery of the coal basin of the Pas-de-Calais that the serious introduction into France of mine-seeking industry is principally due. The importance to France of the operations which were commenced in 1847 on this part of its territory, and which have been actively pushed forward between 1859 and 1862, may be inferred from the fact that the mines of the Pas-de-Calais, put in working by 17 concessions, effected an extraction, in 1863, of 1,100,000 tons, representing a value at the pits' mouths of 600,000*l.*, a production which scarcely existed in 1850. The expenditure which the sinking of nearly 40 shafts, the creation of coal railways, of workmen's houses, &c., had involved, amounted in 1864 to 2,000,000*l.*; and the Pas-de-Calais has been entirely transformed by this vast development, a new industrial life of the most active character having been communicated to it. A considerable benefit has resulted for the North of France and for the whole nation, which now annually gains the sum of 600,000*l.*, which it would otherwise have to pay to foreign collieries. As an example of the high profits which mining research yields, we may remark that the explorations made by different associations in the Pas-de-Calais have given very large returns. Thus, explorations which had cost in this department from 1600*l.* to 2000*l.*, have yielded on their success to the parties interested from 12,000*l.* to 40,000*l.*, the capital expended having been thus quadrupled, and in some cases decupled, as the following examples will prove:—The discovery of the Meurchin Mines, which cost the exploring society, established for the purpose of investigating this part of the basin, 3200*l.*, yielded 20,000*l.* The Bruay Mines, upon which the parties exploring expended 2000*l.*, yielded 16,000*l.* The discovery of the Carvin Mines, which cost the explorers 3200*l.* in researches, yielded them 36,000*l.* Tempted by these and other examples which we might cite, some capitalists, as we have observed, have united a portion of their resources for the purpose of exploring the coal wealth of the centre of France, and the result of their efforts is awaited with hope, confidence, and interest, by the French commercial public. Consumption has increased, and is still increasing so rapidly in France, that even if the central departments should prove a second Pas-de-Calais, there will still, doubtless, be a French demand for English coal.

HAS MR. JOHN CLARE, JUN., ANY CLAIM ON GOVERNMENT?—We

thought, on reading the late proceedings in his case in the Court of Queen's Bench, that he had, and so have thought many others. This opinion is endorsed as follows, by a gentleman whom everybody knows is perfectly capable of forming a correct judgment:—"Having known Mr. John Clare, Jun., for upwards of 20 years, and entertaining a high opinion of his commercial, mechanical, and scientific capabilities, and sympathising deeply with him and his family at the apparent unjust treatment cast upon him by the Admiralty shirking his claims upon them on national grounds, to encourage original inventive talent, I afford me great pleasure in endorsing a national fund (in addition to the various sums I have already aided him with) to the extent of 200*l.*—WM. TITHERTON: Liverpool, June 25.—Liverpool Daily Post, July 11.

DISCOVERY OF A STALACTITE CAVERN.—A quarryman employed at Brixham, in Devon, perceived a day or two ago, after blasting, an aperture 12 ft. or 14 ft. overhead. It was found to lead to an extensive stalactite cavern, which extends in several directions and for considerable distances. Many of the crystals of time have assumed beautiful and curious forms. It is understood that a scientific explanation of the cavern will shortly be made.

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA
IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 25th instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—
And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 25th inst. after which hour no tender will be received.
India Office, July 15, 1864. GERALD C. TALBOT, Director-General.

Contract for Coal.

SOUTH-EASTERN RAILWAY.—The Directors of the South-Eastern Railway Company are PREPARED TO RECEIVE TENDERS for the SUPPLY OF EIGHTY THOUSAND TONS OF COOKING COALS, to be delivered free on board at the port of shipment, or in the ports of Folkestone, Whitstable, and Strood. Forms of tender may be had on application to the company's storekeeper, No. 5, St. Thomas's-street, Borough, London, S.E.; and sealed tenders to be sent in or before Wednesday, the 3d of August next, endorsed "Tender for Cooking Coal," and delivered to the undersigned.
Company's Offices, London Bridge, July 21, 1864. S. SMILES, Sec.

VALUABLE MINES AND PLANT FOR SALE.—The UNDERSIGNED, as Liquidator of the Nanteco and Penrhyn United Mining Company (Limited), is PREPARED TO RECEIVE OFFERS for the EYSTUMPTAN and BULCH GWYN MINES, with the substantial MACHINERY and PLANT thereon, situated in the rich mineral district of Cardiganshire. The mines have yielded large returns, and it is believed that a very moderate amount of further capital would make them highly remunerative. Full particulars, with inventories of the plant, &c., can be obtained at the office of the undersigned, No. 20, Tokenhouse-yard, London. July 22, 1864. PERCY M. SHARP.

TO COLLIERY AND LANDED PROPRIETORS, ENGINEERS, &c.—The ADVERTISER, having had EXPERIENCE in COLLIERIES, LEAD MINES, the SURVEYING OF ESTATES, and holding good certificates from an engineering college, is OPEN to an ENGAGEMENT. Would go as an assistant to a gentleman in good practice. Unexceptionable references and testimonials. Apply by letter, "X. Y. Z." Post-office, Bishopston, near Swansea.

GOLD MINING.—The ADVERTISER, who has had a LENGTHENED EXPERIENCE in the MANAGEMENT OF AUERIFEROUS QUARTZ MINES, and ERECTION OF QUARTZ CRUSHING MACHINERY in AUSTRALIA and AMERICA, is DESIROUS of an ENGAGEMENT at home or abroad. Unexceptionable references.—Address, THOMAS BELT, Newcastle-on-Tyne.

PENANCE CONSOLS SILVER-LEAD AND COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that the REGISTERED OFFICES of this company are REMOVED from 249, Strand, W.C., to 8, GREAT ST. HELEN'S, LONDON, E.C., where all communications on the business of the mine are to be addressed. By order of the Board.
July 15, 1864. J. F. MAXWELL, Acting Director.

CONSOLIDATED COPPER MINES OF COBRE.—Notice is hereby given, that a HALF-YEARLY GENERAL MEETING of this association will be HELD, in conformity with the Deed of Settlement, at the offices of the company, Gresham House, Old Broad-street, on TUESDAY, the 26th day of July inst., at One o'clock precisely.
WALTER SHARP, Directors of the GEO. WHITMORE company.
Gresham House, Old Broad-street, July 7, 1864.

MARIQUITA AND NEW GRANADA MINING COMPANY.—Notice is hereby given, that the TWELFTH ANNUAL GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, on FRIDAY, the 29th inst., at One o'clock precisely. The transfer books will be closed from the 21st inst. to the 30th inst., both inclusive. 6*l.*, Austinfriars, London, E.C., July 20, 1864. C. O. ROGERS, Sec.

THE WORTHING MINING COMPANY (LIMITED).—Notice is hereby given, that the ORDINARY ANNUAL GENERAL MEETING of the shareholders in this company will be HELD at the offices, 20, St. Helen's-place, Bishopsgate-street, London, on MONDAY, the 8th day of August, at Two o'clock in the afternoon precisely, to receive the report of the directors, together with the accounts and balance-sheet for the past year; to elect two directors in the room of C. R. Essex, Esq., and H. R. Wotton, Esq., going out of office by rotation, but who are eligible for re-election, and offer themselves accordingly; to elect one director in the room of Richard Hallatt, Esq., resigned, and, if thought fit, to confirm the appointment of J. C. Board, Esq., as a director; to fix the amount of remuneration to be paid to the auditors for the past year; to elect two auditors for the current year; and to transact the ordinary business of the company. By order of the Board, GEORGE LAVINGTON, Sec.
20, St. Helen's-place, E.C., July 20, 1864.

MUNTZ'S METAL COMPANY (LIMITED).—Notice is hereby given, that, in conformity with Clause 147 of the Articles of Association, an INTERIM DIVIDEND for the half-year ending 30th June, 1864, at the rate of FIVE POUNDS PER CENT. PER ANNUM, as and by way of interest on capital, will be PAYABLE to the shareholders of this company on the 1st of August next.

The transfer books will be closed from Saturday, the 16th, to Saturday, the 30th inst., both inclusive, for the preparation and issue of the dividend warrants. By order of the Board of Directors, S. H. LOUITT, Sec.
French Wall, near Birmingham, July 9, 1864.

SWANSEA COPPER ORE WHARVES,

GENTLEMEN.—We beg to inform you that, in consequence of the retirement of Messrs. W. and J. M. Williams from the copper ore trade, which they have carried on here for so many years past, we have resolved to enter upon that business, and for which purpose we have secured most eligible wharves, on the west side of the North Point, where vessels drawing 20 ft. of water can get alongside at all times. These wharves are now being covered in, and, together with a steam crusher now erecting, will, we expect, be completed in two or three weeks from this date. The business we propose carrying on is that of copper ore wharfing, combined with metal and other general agencies, which will be managed by our Mr. Thomas Elford, who for 20 years has filled an important situation under Messrs. Williams, Foster, and Co., and for the last eight years has had the entire management of their large copper smelting works, and copper and metal rolling mills, in this locality, as well as the copper ore business of Messrs. W. and J. M. Williams, which we trust will be a sufficient guarantee to our friends that any business they may entrust to our care will be conducted with the most scrupulous attention to secure the best results for their interests. Soliciting a share of your consignments of ore, regulus, and slab copper to this port, as well as a share of any general business you may have to transact in this quarter, We remain, Gentlemen, your obedient servants,
ELFORD, WILLIAMS, AND CO.
REFERENCES:—Messrs. Williams, Foster, and Co., London and Liverpool; Messrs. Williams, Harvey, and Co., London and Liverpool; the Glamorgan Banking Company, Swansea; Messrs. Alex. Bell and Sons, No. 8, Finch-lane, London.

THE GREAT WHEAL BONNIE TIN MINING COMPANY (LIMITED).

Capital £50,000, in 10,000 shares of £5 each, of which 5500 only remain for allotment. Completely registered under the Companies Act, 1862. The liability of each shareholder is strictly limited to the amount of shares subscribed for. Deposit on application £1 per share, and £2 on allotment. It is not expected any further calls will be required, as certain and regularly increasing returns of ore will be made immediately after the erection of machinery, and the drainage of the mine commences.

Applicants not receiving an allotment will have their deposits returned without deduction or delay.

DIRECTORS.

EDWIN CARTER, Esq., banker (Messrs. Hawkey, Whitford, Whitford, Collins, Whitford, and Carter), St. Columb, Cornwall.
JOHN COTTELL HARVEY, Esq., ironmaster, Longton and Stoke-upon-Trent, Staffs.
ROBERT WALLER JONES, Esq., (Director of the Rossa Grande Gold Mining Company), Ormonde-terrace, Kensington, W.
FINLAY KNIGHT, Esq., (Director of the Midland Banking Company), Landsean-works, Blackfriars-road.
JOHN POWIS, Esq., (Messrs. Powis, James, and Co.), 26, Watling-street, and Victoria Works, Blackfriars-road.
Lieut.-Col. S. AUCHMUTY DICKSON, M.P., Carlton Club, and Croom Castle, County Limerick (Deputy-Chairman of the Limerick and Foynes, and Rathkeale and Newcastle Junction Railway).
JOHN FOLLIOTT POWELL, Esq., (Director of the Lands Improvement Company), Albion-place, Hyde-park-square.

JOSEPH THOMPSON, Esq., (Director of the Quebrada Land, Railway, and Mining Company), 5, St. Stephen's-square, Westbourne-park, W.

BANKERS.—The Imperial Bank, Lombury, E.C., and 53, Parliament-street.

The St. Columb Bank and its Branches, Cornwall.

BROKER—James Robertson, Esq., 4, Angel-court, Throgmorton-street, E.C.

SOLICITOR—John Foster Elmalie, Esq., 10, Lombard-street.

AUDITOR—Edmund Harding, Esq., public accountant, Basinghall-street, E.C.

SUPERINTENDING AGENT—Capt. John Vivian, Camborne, Cornwall.

SECRETARY—Edward A. S. Mignon, Esq.

PURSER—W. Page Cardozo, Esq., Camborne, Cornwall.

OFFICES.—No. 1, BASINGHALL STREET, LONDON, E.C.

ABRIDGED PROSPECTUS.

The Great Wheal Bonnie Tin Mine is situated in the parish of St. Austell, Cornwall, and contains four rich parallel tin lodes, one of which has been worked to a 50 ft. level. The mine is in the centre of the most remunerative tin stream works in Cornwall; in the same geological formation, and adjoining the celebrated Great Wheal Beam, Goombarrow, and other rich tin mines which have yielded large profits.

To secure the speedy development of the mine, and to prevent uncertainty as to time or outlay, arrangements have been entered into with responsible and well-known contractors, who will undertake the erection of three steam-engines for pumping, winding, and stamping, and all machinery, dressing plant, and pit-work; the erection of all necessary buildings and workshops, and the complete drainage and clearing of the mine, within ten months of the commencement of operations, and to hand over the mine in good working order, according to the judgment of the company's engineer, for the sum of 19,500*l.*, two-fifths of which they are willing to take in shares of the company, with only £3 paid, and the remainder in cash, and are also prepared to give a guarantee of £5000 for the due fulfilment of the contract.

Prospectuses, with full reports of John Hitchens, Esq., M.E., Capt. James Pope, Capt. John Vivian, Capt. Joseph Jewell, Capt. William Roberts, Capt. Charles Thomas, Capt. John Edwards, Capt. Henry James, Capt. Richard Hancock, Mr. Samuel Sampson, Mr. Stephen Symons, Mr. Robert Dunstan, Capt. John Beaud, Capt. Thomas Parkyn, Mr. Mathew Hore, Capt. William Rowe, Capt. S. Collins, Richard Jacobs, J. Allen, and 25 miners who had worked in the mine, and forms of application for the remaining 5500 shares, may be obtained from the bankers, brokers, solicitor, and at the offices of the company, No. 1, Basinghall-street, London, E.C.; or from W. Page Cardozo, Esq., Camborne, Cornwall. In the event of any applicant not receiving an allotment, the deposit will be returned without deduction or delay.

THE ISLE OF MAN SLATE QUARRY AND GOLD MINING COMPANY (LIMITED).
Incorporated under the Companies Act, 1862, which limits the liability of each shareholder to the amount of his shares.
Capital £100,000, in 100,000 shares of £1 each.
Deposit on application 2s. 6d. per share, and 2s. 6d. on allotment.
No call to exceed 2s. 6d. per share, and an interval of not less than six months between each call.
A less number than 100 shares will not be allotted.
DIRECTORS.
Capt. R. J. MARSH, R.N., Cottage Mona, Ramsey—Chairman.
Capt. EWEN CAMERON, Glenfaba House, Peel.
SAMUEL BROADBENT, Esq., Bithale, Orchan, near Douglas.
JOSEPH HIGGINS, Esq., Foveril-terrace, Peel.
LESLIE LOCKHART, Esq., H.M. Customs, Peel.
Capt. G. RUSSEL, 105, Albany-street, Regent's-park, London.
JOHN MORGAN, Esq., Wainham Lodge, Shrewsbury.
(With power to add to their number.)
MANAGING DIRECTOR.
Henry Johnson, Esq., Norfolk House, St. John's, Isle of Man.
BANKERS.
The North and South Wales Bank, Liverpool.
The National Provincial Bank of England, Shrewsbury.
SOLICITOR AND SECRETARY—C. Hicks, Esq., Shrewsbury.
REGISTERED OFFICE.—MARKET CHAMBERS, SHREWSBURY.

ABRIDGED PROSPECTUS.
This company has been established for the purpose of acquiring and working a most extensive and valuable mineral property, called the Glenraheen and Dalry Slate and Slab Quarries, situated in the parish of Patrick, in the southern district of the Isle of Man. The property on which the quarries are opened consists of 6906 acres, nearly the whole of which is proved to be composed of slate rock, equal in quality to any produced from the best quarries in Wales.

This immense property, which it is believed is the largest slate sett in the kingdom, and likely to become one of the most valuable, is held under a lease from the Crown for the term of 21 years, at a reduced royalty of 1-16th, of which term 19 1/2 years are unexpired.

A large sum of money has been spent in opening out and proving the value of their property, not only at the principal quarries at Glenraheen, but also on about 20 different parts of the sett, and "these trials have proved" (as stated in the report of Capt. John Francis, of Penryn, North Wales, under whose direction and advice these trials were made) "that almost the whole grant of 7000 acres is composed of slate-rock, and capable of having from eight to ten different quarries opened upon it."

The machinery and plant are very valuable, consisting of water-wheels, sawing mills and cutting machines, tramways, dressing sheds, offices, smiths and carpenters' shops, machine house, and other buildings, and there are several cottages erected, with a dining room and other conveniences for the accommodation of the quarrymen. The sett has been inspected by Capt. John Francis, as before stated, and by Mr. W. R. Williams, of Delgely, mining engineer, Capt. Thomas and Robert Williams, of Coodporth, Denbighshire, and several other practical men, all of whom speak thereof in the highest terms.

The colour of the slate is a fine dark blue, the grain close and compact, the texture good, the lamination fine and silky, and the cleavage very good and straight. There is also a very promising vein of iron slate, which Capt. Francis recommends should be proved by driving a level into the rock, and if it turn out as well as anticipated will prove a very good green quarry.

In addition to the slate there are several veins or reefs of auriferous quartz traversing a portion of the sett, near to the Foxdale district, which it is believed will prove a valuable acquisition to the company. Portions of the quartz have been assayed by Messrs. Johnson and Sons, of London, Mr. Samuelson, of Liverpool, and other public assayers, with results varying from 1 oz. 2 dwts. to 5 dwts. of fine gold to the ton of quartz, and from the report of Mr. W. R. Williams there is every reason to expect most profitable results.

The quarries are about three miles from the shipping port of Peel, but when the projected railway from Douglas to Peel is completed they will be within a mile and a half of the intended station at Kirkpatrick, to connect them with which a loop-line will doubtless soon be formed.

Only £30,000 of the capital remains to be allotted. Specimens of the slate may be seen, and prospectuses and forms of application for shares obtained at the offices of Messrs. LITTLEDALE, RIDLEY, and HANDSWELL, solicitors, Brown's-buildings, Liverpool; or at the registered office, where the original reports and map of the quarries may be inspected.

FORM OF APPLICATION FOR SHARES.
To the Directors of the Isle of Man Slate Quarry and Gold Mining Company (Limited).
GENTLEMEN,—Having paid to your bankers the sum of £....., I hereby request that you will allot me shares in the Isle of Man Slate Quarry and Gold Mining Company (Limited), and I hereby agree to accept such shares, or any smaller number that may be allotted to me; to pay the deposit, allotment, and calls thereon, and to become a member of the company; and I authorise you to place my name on the register of members for the shares which may be allotted to me.
I am, Gentlemen,
Name in full.....
Address in full.....
Profession or business (if any).....
Place of business (if any).....
Date.....

THE NORTH POOL MINE COMPANY.
The following STATEMENT OF EXPENDITURE, from NOVEMBER 15th, 1862, to end of JUNE, 1864, was issued yesterday to the shareholders, in anticipation of the general meeting of the proprietors, convened to be held upon the mine on Thursday next at noon:—

EXPENDITURE.		
November, 1862.—Purchase of lease.....	£ 4,000 0 0	
Costs from Nov. 15 to Dec. 30, 1862 ..	80 19 9	
" " Dec. 30 to Jan. 17, 1863 ..	74 16 10	
" " Jan. 17 to Feb. 21, 1863 ..	58 5 11	
" " Feb. 21 to March 21, 1863 ..	128 17 7	
" " March 21 to April 18, 1863 ..	107 0 0	
" " April 18 to May 16, 1863 ..	133 1 9	
" " May 16 to June 20, 1863 ..	232 2 1	
Discount allowed on call (£1024) ..	51 4 0	
Expenses of depuration to the mine ..	40 0 0	
Stamp duty on bill of exchange ..	0 8 4	
Costs, from June 20 to July 18, 1863 ..	165 17 7	
" " July 18 to Aug. 15, 1863 ..	170 16 5	
" " Aug. 15 to Sept. 19, 1863 ..	155 17 5	
" " Sept. 19 to Oct. 17, 1863 ..	165 8 4	
" " Oct. 17 to Nov. 21, 1863 ..	160 14 0	
" " Nov. 21 to Dec. 19, 1863 ..	237 10 5	
" " Dec. 19 to Jan. 16, 1864 ..	148 19 6	
Purchase of 60-in. steam pumping ..	1795 0 0	
Merchants' bills to end of Dec. 1863 ..	765 0 10	
Rebate allowed on call (£3200) Aug. 5, 1863 ..	102 16 0	£ 4,772 16 9
Costs, from Jan. 15 to Feb. 19, 1864 ..	254 3 5	
" " Feb. 19 to Mar. 19, 1864 ..	297 11 8	
" " March 19 to April 16, 1864 ..	261 18 8	
" " April 16 to May 21, 1864 ..	282 15 10	
" " May 21 to June 18, 1864 ..	249 18 8	
" " June 18 to July ..	417 9 1	
Rebate allowed on call (£3200) Jan. 29, 1864 ..	132 7 6	£ 1,896 4 10
Merchants' bills, January to end of June, 1864:—		
Sandys, Vivian, and Co.	£ 406 3 9	
Thomas Tyack ..	71 19 4	
E. Burgess ..	21 18 3	
William Vivian ..	8 7 7	
John Draper ..	6 13 0	
George S. Arnall ..	56 11 4	
Camborne Trading Company ..	186 19 11	
C. Watt and Co.	9 18 0	
Nancarrow and Tregenza ..	49 4 9	
S. Higgs and Son ..	16 16 0	
John Condy ..	144 12 7	
Kennall Gunpowder Company ..	18 0 0	
Harvey and Co.	10 2 1	
J. W. and J. Gilbert ..	5 5 8	
A. Treglow ..	0 16 6	
Richard Mitchell ..	72 9 6	
Robert Mitchell and Son ..	12 1 6	
South Gorland Mine ..	4 19 9	
Rickford, Smith, and Co.	3 18 0	
John Earle ..	6 4 0	
Wertheimer and Co.	24 18 0	
A. J. Hall ..	13 9 10	£ 1,165 16 11
Total ..	£11,834 18 6	
June 30.—Balance against the adventurers, 4101. 18s. 6d.		
CAPITAL.		
November, 1863.—Issue of shares ..	£4000 0 0	
March 29, 1863.—Call of £16 per share ..	1024 0 0	
August 5, 1863, — " 10s. per share ..	3200 0 0	
Jan. 28, 1864, — " 10s. per share ..	3200 0 0	£11,424
Balance ..	410 18 6	
Total ..	£11,834 18 6	
ADDENDA.		
Dr.—Balance of expenditure against the adventurers to end of June, 1864. £ 410 18 6		
Arrears on second call of 10s. per 6400th share, as per cost-book ..	130 0 0	
third ..	586 10 0	
Acceptance held by the manager and treasurer, drawn on account of the company, and secured by shares ..	1200 0 0	
Total ..	£2327 8 6	
Ch.—Merchants' bills ..	£1165 16 11	
Balance ..	1161 11 7	
Total ..	£2327 8 6	
Balance due to Mr. R. Tredinnick, manager and treasurer of the company, 1161. 11s. 7d., upon paying all obligations up to the end of June month, and to meet which there are arrears of call 716l. 10s., and 1200l. bills receivable, to be credited when paid.		

MR. GEORGE HENWOOD, MINING ENGINEER.
LOCHESSE HOUSE, LOCHWINNOCH, SCOTLAND, OFFERS HIS SERVICES AND ADVICE on mines situated in any part of England, Scotland, Wales, Ireland, Isle of Man, &c. Mr. Henwood's extensive experience in his peculiar department of mining science is well known, and will be exerted to the utmost for the benefit of his clients.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WEST CRINIS COPPER MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY, by the Court was, on the 29th day of June last, presented to the Vice-Warden of the Stannaries, by William Eaton, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the offices of Winslow Jones, Esq., Cathedral-yard, Exeter, on Tuesday, the 26th day of July inst., at Ten of the clock in the forenoon.
Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. F. Smith, Esq., secretary of the Vice-Warden, Truro.
Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 23d day of July inst., and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.
HENRY SEWELL STOKES, of Truro
(Agent for F. W. Dolman, 39, Jernyn-street, St. James's, London, Solicitor for the Petitioner).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the NORTH WHEAL VOR MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY, by the Court was, on the 29th day of June last, presented to the Vice-Warden of the Stannaries, by Alfred Hyard Sheppard and John Nicholas Payne, contributory and creditors of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the offices of Winslow Jones, Esq., Cathedral-yard, Exeter, on Tuesday, the 26th day of July inst., at Ten o'clock in the forenoon.
Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioners, their solicitor, or agents, of his intention to do so, such notice to be forthwith forwarded to P. F. Smith, Esq., secretary of the Vice-Warden, Truro.
Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioners, or their solicitor or agents, within 24 hours after requiring the same, on payment of the regulated charge per folio.
Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 23d day of July inst., and notice thereof must at the same time be given to the petitioners, their solicitor, or agents.
HODGE, HOCKIN, AND MARRACK, Truro
(Agents for S. T. G. Downing, Redruth, Solicitor for the Petitioners).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the SILVER VALLEY MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR DEBTS or CLAIMS at the Registrar's Office, Truro, on Tuesday, the 24th day of August next, at Eleven o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof. And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons), they are to send affidavits of their several debts or claims to the Registrar of the Court at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the superior Courts lawfully authorised to take and receive affidavits and affirmations.
WILLIAM MICHELL, Registrar of the above-named Court, Truro, Cornwall.
Dated the 18th day of July, 1864.

FINAL SALE.
TUESDAY, AUGUST 9, 1864, ELEVEN A.M.

MR. BURGESS is instructed to SELL, BY PUBLIC AUCTION, the whole of the ENGINES and MATERIALS remaining at GREAT WHEAL ALFRED MINE, on Tuesday, August 9, at Eleven A.M., comprising—
65 in. cylinder PUMPING ENGINE.
25 in. DRAWING ENGINE.
Powerful crusher.
2 cast-iron rods, 10 and 12 in.
Capstans, cast-iron centre pieces.
Very powerful punching machine.
Machine for boring workings, &c., with all the belt wheels and shafts complete, with granite stands 2 tons weight.
Excellent screwing machine for steam-large vice.
Superior new shaft gill (never used), with conical head, 8 wheels for skip road.
4 old shaft gills.
11 steam whelm kibbles.
12 in. steam whelm.
10 skips, fagotted iron.
Treble fagotted couplings and rings for Sundry fagotted iron rods.
3 in. bucket rods, fagotted loops & cheeks.
Staples and glands, 3 fagotted self off-shaft door iron.
2 top blocks and stools for bob, nearly Shieve brackets for pulley stands.

IN YARD.
Blast bellows fittings, half rope.
Zinc funnel for air shaft.
Sundry other materials, old wrought and cast-iron.
2 jiggling hatches.
Large wood material house and partitions, all sawn and scantie timber.
Excellent candle chest.
Sundry old wood and old bricks.

ACCOUNT HOUSE FURNITURE.
DINING ROOM.—Set of painted dining tables and arm chairs, fender and fire-irons.
BED ROOMS.—Two French bedsteads and bedding, two mattresses (straw and hair), feather beds, bolsters, and pillows.

OFFICE.
Handsomely brass mounted double mahogany desk, office stools, model of a skip-road, ruler, inkstand, copying press, candlesticks, oil lamps and shades.
FURNISHING.—Two French mahogany dining tables in excellent condition, 7 ft. 6 in. by 4 ft.; two circular end painted tables, chairs, copper ore scales, brass beams, cast-iron hat and umbrella stand, fender and fire set.
CAPTAIN'S ROOM.—Deal table, cupboard, chairs, large roasting range grate.
KITCHEN.—Two deal tables, eight-day clock and eight-day time-piece, form, large stove and oven and copper boiler, patent roasting apparatus, boilers, saucepans, water barrow and barrel, and kitchen utensils.
FANTRY.—Dinner set, glass, knives and forks (backbone and black handle), two large carvers, dial and quadrant.
The engines and materials may be by private contract, on application to DAVID COHEN, Esq., 3 Bank Chambers, Lothbury, London; or to Mr. BURGESS, the auctioneer, Barnose, Redruth. If sold before the public auction, notice will be given thereof in the Plymouth daily papers.

VALUABLE COPPER MINE IN NORTH WALES.

MESSRS. T. M. FISHER AND SON WILL SELL, BY AUCTION (by order of the trustees and executors under the will of James Hamer, Esq., deceased), at the Clarence Hotel, Spring Gardens, Manchester, on Tuesday, the 2d August, 1864, at Three for Four o'clock P.M., subject to such conditions as will be then and there produced, all that VALUABLE COPPER MINE, at Beddgelert, in the county of Carnarvon, known as the BRYN FELIN MINE, together with the newly erected MACHINE HOUSE, DRESSING HOUSE, and OTHER BUILDINGS, and the TURBINE WHEEL and MACHINERY, with the PLANT and other WORKING APPLIANCES, all recently erected and purchased at a very considerable expenditure, all of which are in good working condition.

This mine has been worked for some years, but has only recently been developed, after a considerable amount of labour, and at a cost of nearly £6000. The workings connected with it are of an excellent character, and in perfect condition. An adit level of 100 fms. (now completed) having been driven opens out several pipes of rich copper ore, which have recently been worked at a good profit, and yield an average of 8 per cent. of pure copper. The pipes or branches of copper already discovered are numerous, and are capable of being worked to a considerable profit, and at a comparatively small expenditure. The average price of working the ore (inclusive of freight) has been £3 per ton, and the average price for which the ore has been sold has been £7 10s. per ton. There is an abundant supply of water-power from the River Glaslyn, and the high road from Beddgelert to Portmadoc, which passes the mine, affords every facility for the carriage of the ore to the sea, where it can be shipped at a small cost to Liverpool or other neighbouring ports.

The mine is held for the residue of a term of 21 years, under a new lease, dated 29th November, 1862. The superficial area of the land, under which the minerals can be obtained, is over 35 statute acres, and the royalty is 1-16th of the minerals.
This mine is being sold under the trusts of the deceased's will, and the trustees have made arrangements by which every facility will be offered to persons desirous of inspecting it. It has been carefully examined by disinterested and experienced men, whose reports are very favourable, and a personal inspection will satisfy any person conversant with mines that it will prove an excellent and lucrative investment.
Further particulars may be obtained at the mine, or at the offices of Messrs. GOLDEN and SWINBURNE, solicitors, Royal Insurance-buildings, King-street, Manchester.

BARYTES MINE TO LET.—TO LET, in AYRSHIRE, a LARGE FIELD OF BARYTES, of the finest quality. The mine is most favourably situated for water-power, and close to a railway.—For further particulars, apply to Mr. P. THOMSON, Post-office, Ayr.

IRON ORE ROYALTY TO LET.—About FIFTY-TWO AND A HALF ACRES, near the Brigham Railway Station, on the Cockerham and Workington Railway, CUMBERLAND.—Mr. JOHN THOMPSON, the tenant on the farm, will show the extent, and particulars will be given on application to the Rev. J. DUFFON, Breckfield Rectory, Woodbridge, Suffolk, the owner.—July 14, 1864.

FOR SALE, 19 1/2 in. FORCING PUMP, 14 in. LIFTING PUMP, HAND PUMPS, pumping crank, lifting screw, pit chain, and other colliery material.—Apply to Mr. JOHN FAULAN, Nallisea, near Bristol.

POSTPONEMENT OF SALE.
WEST RIDING OF YORKSHIRE, AKETON HALL, NEAR PONTEFRACE.
MESSRS. BEADEL beg to inform the public that the above IMPORTANT RESIDENTIAL ESTATE IS WITHDRAWN FROM PUBLIC AUCTION FOR THE PRESENT.—28, Gresham-street, July 19.

FOR SALE, the RIGHT to the PATENT of a VALUABLE IMPROVEMENT in VALVES and BUCKETS for PUMPS, and in VALVES or COCKS for OTHER USES.—For particulars, apply to Mr. W. T. RAWLE, patent and mining agent, 39, Budge-street, Bristol.

HORIZONTAL ENGINES FOR SALE, at very low prices.—One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

TO MINE AND QUARRY PROPRIETORS, AGENTS, AND OTHERS.—TWO MINING ENGINEERS of considerable experience have united their businesses, and are NOW PREPARED to ERECT, by contract or otherwise, ALL DESCRIPTIONS OF MINING or SLATE QUARRYING MACHINERY, or will SUPPLY WORKING or FINISHED DRAWINGS or DESIGNS for ANY DESCRIPTION OF ENGINES, MACHINERY, or DRESSING FLOORS. SURVEYS or SECTIONS OF MINES or QUARRIES EXECUTED with accuracy and dispatch. Present business in the counties of Carnarvon, Merioneth, Cardigan, and neighbourhood, but would now undertake work in any part of Great Britain or abroad, having had many years' experience in foreign mines, and speaking Spanish fluently. The highest rates are given to mines in which works are at present being carried on, or to former ones.—Address, "H. J. W." Mining Journal office, 26, Fleet-street, London, E.C.

TO INVENTORS AND PATENTEES.—A GENTLEMAN having an extensive connection with manufacturers, merchants, and others, would be GLAD to UNDERTAKE the SALE of INVENTIONS or PATENTED ARTICLES, on commission.—Apply to Mr. RAWLE, patent office, 14, Clare-street, Bristol. N.B.—Continental and foreign agencies solicited.

SPIEGELEISEN.—SPECULAR IRON OF the VERY BEST QUALITY, £7 10s. PUDDLED STEEL, in square and flat bars, £11 10s. f.o.b. at Hall. Samples on application. JULIUS GOLDSTEIN, Hamburg.

BEST MANGANESE SPIEGELEISEN DELIVERED at ANY PORT of the UNITED KINGDOM.—For testimonials, and all information apply to Wm. BIRD and Co., 2, Lawrence Pountney-hill, London, E.C.

Gun Cotton Manufactory.

MESSRS. THOMAS PRENTICE AND CO., GREAT EASTERN CHEMICAL WORKS, STOWMARKET, SUFFOLK.
This manufactory has been established for the purpose of preparing GUN COTTON, according to the Austrian process, and was opened on the 26th of January last, under the inspection of Baron Lenk. Messrs. Thomas Prentice and Co. are now able to SUPPLY GUN COTTON, in its most approved form, either for the purposes of engineering and mining, or for military and submarine explosion, and for the service of artillery, as a substitute for gunpowder.

The advantages of Baron Lenk's GUN COTTON are the following:—
For PURPOSES OF ARTILLERY.—The same initial velocity of the projectile can be obtained by a charge of gun cotton one-fourth of the weight of gunpowder. There is no smoke from the explosion of gun cotton; it does not foul the gun, nor heat it to the injurious degree of gunpowder. There is much smaller recoil of the gun. The same initial velocity of projectile is produced, with a shorter length of barrel. In projectiles of the nature of explosive shells it breaks the shell more equally into much more numerous pieces than gunpowder. When used in shells, one-third the weight of gun cotton produces double the explosive force of gunpowder.

For CIVIL ENGINEERING AND MINING.—In driving tunnels through hard rock a charge of gun cotton of given size exerts double the explosive force of gunpowder, thus a smaller number of holes is necessary. It may be so used as, in its explosion, to reduce the rock to much smaller pieces than gunpowder, and so facilitate its removal. As gun cotton produces no smoke, the work can proceed much more rapidly, and with less injury to the health of the miners. In working coal mines the advantages of bringing down much larger quantities of material with a given charge, and the absence of smoke in the explosion, enable a much greater quantity of work to be done in a given time at a given cost. The weight of gun cotton required to produce a given effect in mining is only one-sixth part of the weight of gunpowder. In blasting rock under water the wider range and greater force of a given charge is a great element in cheapening the cost of submarine work. The peculiar local action of gun cotton, to which the effects of gunpowder show no analogy, enables the engineer to destroy and remove submarine stones and rocks, without the preliminary delay and expense of boring chambers for the charge.

For MILITARY ENGINEERING.—The facility of transport is increased, the weight of gun cotton being one-sixth that of gunpowder. The peculiar local action of gun cotton facilitates the destruction of bridges and palisades, and every obstacle. For submarine explosion, gun cotton has the advantage of a much wider range of destructive power than gunpowder. For the same purpose gun cotton, from its lightness, has the advantage of keeping afloat the water-tight case in which it is contained, while gunpowder sinks it to the bottom.

For NAVAL WARFARE.—In the batteries of ships, between decks, and in casemated forts, the absence of smoke facilitates continuous rapid firing. The absence of fumes and of heating are equally advantageous for naval as for military artillery.

GENERAL ADVANTAGES.—Time, damp, and exposure do not alter the qualities of the patent gun cotton. It has already been preserved 10 years without injury or decay. It can be transported through fire without danger, simply by being wetted, and when dried in the open air it becomes as good as before. In the case of a ship, or a fortress, or a city being on fire, this quality may be of the greatest value. It is much safer than gunpowder, owing to its being manufactured in the shape of rope or yarn. It cannot escape from its package, or be spilled by accident. The patent gun cotton is entirely free from the danger of spontaneous combustion, and secures that degree of safety and certainty which, at the time of the original invention, the gun cotton of Schönbach did not possess.

Messrs. THOMAS PRENTICE and Co. are now in a position to contract with the owners of mines, engineers, contractors, and governments for gun cotton prepared in the various forms required for their use. Mining charges will be supplied in the rope form, according to the diameters of bore required, and gun cotton match-line, as well as instructions for using it in mines, will be supplied with it.

The great advantage of gun cotton make its use in practice very much cheaper than its comparative price would appear to show; in blasting rock, for example, the rapidity and quantity of the work done, with a given expense of wages, &c., is largely in favour of gun cotton.

Messrs. THOMAS PRENTICE and Co. are also prepared to manufacture the gun cotton, and deliver it in the form of gun cartridges, adapted to every description of ammunition; all they require for this purpose being a drawing of the gun, gunpowder cartridges, and ammunition, with the specification of weights, sizes, and initial velocities. Artillerists who prefer to manufacture their own cartridges may make special arrangements with the patentees through Messrs. PRENTICE and Co. Stowmarket, March 10, 1864.

PAFREEMAN AND CLARK, PRACTICAL ENGINEERS, are PREPARED to MAKE DRAWINGS and UNDERTAKE the EXECUTION of LOCOMOTIVES and STATIONARY ENGINES for IRONWORKS, MINES, &c., and MACHINERY in GENERAL. They will also superintend the execution of orders in this country for abroad.—4, Corporation-street, Manchester.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN, via SHREWSBURY, has had upwards of 20 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES to SURVEY and REPORT UPON ANY MINE.

CARDIGANSHIRE MINING OFFICES.
MESSRS. WILLIAMS, BRAY, AND CO. beg to inform their mining friends and the public generally that, in consequence of the numerous applications and requests they have received, they now UNDERTAKE the INSPECTING and REPORTING on MINES.

The several members of the firm having had many years' experience in mining in all its branches is the best guarantee of their ability in such matters; and they trust that, by carefully examining the mines they visit, and faithfully reporting thereon, and by constantly watching the progress of both old and new undertakings, they will be able to supply a want that has been greatly felt in the district, and give every information and advice that may be required.

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MESSRS. HARVEY AND CO., MINING ENGINEERS, AGENTS, and SHAREDEALERS, CLARENCE CHAMBERS, MANCHESTER, are at all times in a position to deal in all the market Dividend and Progressive Mine shares, and also to advise on all mining matters, being practically acquainted with the business, and having a daily communication from the mining districts of Devon and Cornwall.

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LEIGH, MOLYNEUX, AND CO., MINE AGENTS AND SHAREBROKERS, BUY and SELL SHARES of EVERY DESCRIPTION, on commission or for net cash.
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MANUFACTURERS OF PORTABLE AND FIXED STEAM ENGINES, MA-
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FOR STEAM CULTIVATION, SELF MOVING ENGINES FOR COMMON ROADS
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RAILWAY WEIGHING TURNABLES, &c.
CRANES
OF THE WALL, PILLAR, PORTABLE, or TRAVELLING KINDS; and CRABS AND
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We repair them at half the first cost, making them equal in size to new ones, all par-
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No. 1 tye, 16 in. long	28s. each.
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CAST STEEL PISTON RODS, CRANK PINS, CON-
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THE SUPERIOR QUALITY OF GARNOCK, BIBBY, AND CO.'S WIRE-ROPE
FULLY PROVED BY A RIVAL MANUFACTURER at the LIVERPOOL PUBLIC
TESTING MACHINE, on the 29th of October, 1860, on which occasion GARNOCK,
BIBBY, AND CO.'S ropes were found to be the STRONGEST of
all the TWELVE SAMPLES from different makers then
tested, as reported in the papers of the day. For example:—
(Certified by Mr. William Macdonald, superintendent.)

Garnock, Bibby, and Co.	Corresponding sizes from other manufacturers.
Sizes.	Tons c.
3 1/4 in. 18 5/8	10 10
2 1/2 in. 8 15/16	7 15
2 1/4 in. 8 15/16	7 15

Remaining sizes with similar results.

* Samples taken promiscuously from stock by a rival
manufacturer's agent.

GARNOCK, BIBBY, AND CO.,
SWAN HEMP AND WIRE ROPE MANUFACTURERS,
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FLAT AND ROUND STEEL AND IRON WIRE ROPES FOR
MINES, &c., OF SUPERIOR QUALITY.

BASTIER'S PATENT CHAIN PUMP.

APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY
APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE,
&c., &c.

U. BASTIER begs to call the attention of proprietors of mines, engineers, architects,
owners, and the public in general, to his new pump, the cheapest and most efficient ever
produced to public notice. The principle of this new pump is simple and effective, and
action is so arranged that accidental breakage is impossible. It occupies less space
than any other kind of pump in use, does not interfere with the working of the shafts,
and is so light with a degree of durability almost imperishable. By means of this
machine water can be raised economically from wells of any depth; it can be
driven either by steam-engine or any other motive power, by quick or slow motion.
The following statement presents some of the results obtained by this hydraulic machine,
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- It utilizes from 90 to 95 per cent. of the motive power.
- The price and expense of installation is 75 per cent. less than the usual pumps em-
ployed for mining purposes.
- It occupies a very small space.
- It raises water from any depth with the same facility and economy.
- It is raised with the water, and without the slightest injury to the apparatus, sand,
wood, stone, and every object of a smaller diameter than its tube.
- It is easily removed, and requires no cleaning or attention.
- A mining pump can be seen daily at work, at Wheel Concord Mine, South Sydenham,
near Tavistock; and a shipping pump at Woodside Graving Dock Company
(limited), Birkenhead, near Liverpool.
- U. BASTIER, sole manufacturer, will CONTRACT TO ERECT HIS PATENT PUMP
ON OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will
grant LICENSES to manufacturers, mining proprietors, and others, for the USE
OF HIS INVENTION.

OFFICES, 47, WARREN STREET, FITZROY SQUARE.
London, March 31, 1860. Hours from Ten till Four. J. U. BASTIER, C.E.

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Capitalists who seek safe and profitable investments, free from risk, should act only
upon the abundant information. The market prices for the day are for the most part go-
vernment by the immediate supply and demand, and the operations of speculators, without re-
ference to the long-term merits of the property. Railways depend upon the traffic, ex-
penditure, and the creation of new shares, the state of the money market as affecting the re-
turn of debentures, and other considerations founded on data to which those only can have
ready access who give special attention to the subject. Mines afford a wider range for profit than
any other, and are free from debt, have large reserves, and pay di-
vidends monthly varying from £15 to £25 per cent. per annum. Instances frequently
occur of young mines rising in value 400 or 500 per cent. But this class of security,
which should be purchased only upon the most reliable information. The
railways, and effect purchases and sales upon the best possible terms. Thirty years'
experience in mining pursuits justifies us in offering our advice to the uninitiated in se-
lecting mines for investment; we will, therefore, forward, upon receipt of Post-office
order for 6s., the names of six dividend and six progressive companies that will, in our
view, well repay capitalists for money employed.

TREDENICK AND CO., STOCK AND SHAREBROKERS, and DEALERS
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Published every morning, price 1d.

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BEDFORD IRONWORKS, TAVISTOCK.
MANUFACTURERS OF STEAM ENGINES OF EVERY DESCRIPTION, made on
the BEST AND NEWEST PRINCIPLES. We beg most especially to call the attention
of the public to the manufacture of our BOILERS, which have been tested by most of
our leading engineers. PUMP WORK CASTINGS OF EVERY DESCRIPTION, both
of brass and iron. HAMMERED IRON AND HEAVY SHAFTS OF ANY SIZE.
CHAINS made of the best iron, and warranted. RAILWAY WORK OF EVERY
DESCRIPTION.
ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION. Nicholls,
Williams, and Co. have had 20 years' experience in supplying machinery to foreign
mines, and selecting experienced workmen to erect the same, where required.
Messrs. Nicholls, Williams, and Co. have always a LARGE STOCK OF SECOND-
HAND MINE MATERIALS in stock, and at moderate prices.

MESSRS. W. DERRY AND CO., MINING MATERIAL
MERCHANTS, ST. AUUSTELL, respectfully inform the mining public that
they have constantly ON SALE EVERY DESCRIPTION OF MINING PLANT, in
PITWORK, DRESSING APPLIANCES, &c., and STEAM ENGINES, as follows:—
ONE 50 in. cylinder PUMPING. ONE 24 in. ditto ROTARY.
ONE 45 in. ditto ditto TWO 25 in. ditto ditto
ONE 40 in. ditto ditto ONE 20 in. ditto PUMPING.
ONE 30 in. ditto ditto
ONE 10 horse power PORTABLE HIGH PRESSURE ENGINE.
Applications to be addressed as above, or to the engineer of the company, Mr. W. H.
GRAY, St. Austell.

E. L. L. S. L. E. V. E. R.,
PATENTEE AND MANUFACTURER OF
FLEXIBLE TUBING FOR MINES, AND COLLIERY
BRAIDING CLOTH.
WEST GORTON WORKS, MANCHESTER.

RAILWAY CARRIAGE COMPANY (LIMITED),
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.

MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, AND EVERY
DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a
period of years.
RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES, 6, STOREY'S GATE, GREAT GEORGE STREET,
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THE BIRMINGHAM WAGON COMPANY (LIMITED)
is PREPARED TO SUPPLY RAILWAY WAGONS OF EVERY DESCRIPTION,
capable of carrying 6, 8, or 10 tons, at annual rentals, or for purchase on deferred pay-
ments, on advantageous terms. EDMUND FOWLER, Sec.
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THE BEVERLEY IRON AND WAGON COMPANY
(LIMITED).
MANUFACTURERS OF RAILWAY WAGONS, WROUGHT AND CAST IRON
CARRIAGE AND WAGON WHEELS, LURRIES, AND ROAD WHEELS
AND AXLES OF EVERY DESCRIPTION.
PATENT WHEEL MANUFACTORY, BEVERLEY IRONWORKS,
BEVERLEY, YORKSHIRE.

COAL CUTTING MACHINERY.
THE WEST ARDSLEY COMPANY having, by recently patented improvements,
perfected their coal cutting machinery, worked by compressed air, are NOW READY
TO MAKE CONTRACTS FOR THE CONSTRUCTION AND USE OF THEIR MACHINES.

The results of twelve months' experience in the working of these machines, by the
West Ardsley Company, have proved most satisfactory, their use being found to
CHEAPEN THE COST AND IMPROVE THE AVERAGE SIZE OF THE COAL, TO LIGHTEN
THE LABOUR, and also TO MODIFY THE SANITARY CONDITION OF THE MINE.
All communications to be made to Messrs. FIRTU, DOMESTHORPE, and BOWER, No. 8,
Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason
to believe that their patents are being infringed upon, hereby give notice that
they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES who may
MAKE FOR SALE OR USE ANY MACHINERY in the construction of which any
such INFRINGEMENT is MADE.

EDWARDS'S PATENT MINERAL ORE AND COAL
WASHING MACHINE.—This is by far the MOST ECONOMICAL, as well
as the MOST PERFECT MACHINE MADE. Each machine is capable of washing 25
to 50 tons per diem, according to quality.—Full particulars, testimonials, &c., may be
obtained from E. EDWARDS, Esq., C.E., 1, York-buildings, Adelphi, where a working
model may be seen.

CORNISH CRUCIBLE AND BLACK-LEAD POT MAKER,
JOHN JULEFF, FORE STREET, and PEDN-AN-DREA, REDRUTH.

IMPROVED APPLICATION OF WATER-POWER.
THE TURBINE.—MAC ADAM BROTHERS AND CO.,
ENGINEERS, ROHO FOUNDRY, BELFAST, have been engaged for 12 years,
with complete success, in MANUFACTURING their IMPROVED TURBINES, and
can recommend them with confidence.

This machine is applicable to all practicable heights of fall and quantities of water,
giving a much higher percentage of power than any other description of water-wheels.
On low falls it has the additional advantage of not being affected by floods or back-
water, and it is particularly well adapted for any falls where the quantity of water is
variable.

Further particulars on application; also, references to turbines now at work on a great
variety of falls. One may be seen at Mr. GEORGE PARKER'S, Sutton Mills, Maclefield;
and others at the following places:—The Eggleston Mines, Barnard Castle; the Laxey
Mines, Isle of Man; and the Paper Mills of Messrs. MATTHEWS and MARTIN, Bradinch,
near Exeter, and of Mr. JOHN ALLEN, Ivy Bridge.

NEW COMBINED TURBINE, WINDING, AND
PUMPING MACHINERY,
MANUFACTURED BY GEORGE LOW,
MILGATE IRONWORKS, NEWARK-UPON-TRENT.

Who respectfully begs to bring the above to the notice of the mining public, as an ex-
ceedingly cheap and easy method of applying water-power for the above purposes.

THE TURBINE is an all fixed complete
to one strong cast-iron bed plate, which can be placed in any situation without pit or
excavation, and any height not exceeding 33 ft. from bottom of fall, the supply and
suction pipe being all that is required to be connected to it, and can be brought in any di-
rection. This combined machine can be easily removed when necessary.

G. Low begs also to state that the TURBINE is the most efficient and the cheapest
method of applying water-power for mining purposes.

MANUFACTURER OF WINDING, PUMPING, CRUSHING, STAMPING
MACHINERY, WINDING ENGINES, WATER WHEELS.

IMPROVED TURBINE WATER WHEELS CONSTRUCTED SUITABLE TO WORK
VERTICALLY OR HORIZONTALLY, and upon the MOST SCIENTIFIC and EFFECTIVE
PRINCIPLE.

G. Low begs to recommend a special class of turbine adapted for extreme high falls
(200 to 600 ft.), and consuming small quantity of water. This turbine will work with
equal advantage without running at an excessive velocity. Also,
MANUFACTURER OF IMPROVED BORING MACHINES FOR DRIVING ADITS.

CHARLES DAVEY AND CO.,
SAFETY FUZE MANUFACTURERS,
ST. HELEN'S JUNCTION, LANCASHIRE.

CREASE'S PATENT EXCAVATING MACHINERY,
FOR SUPERSEDING THE SLOW AND EXPENSIVE USE OF MANUAL LABOUR
IN SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to
drive through any rock of average hardness at a minimum rate of 1 in. per diem, and
to sink shafts at the rate of 2 ft. in three days.

Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enor-
mous reduction of time and great saving in cost.

Applications to be addressed (for the present) to the patentee, Mr. E. S. CREASE,
Tavistock, Devon.

By providing the power of calculating the time and cost to explore a certain depth
and extent of ground, speculation in mining will be assimilated to commercial pursuits,
with this unmistakable advantage—that when the ground has been once carefully and
judiciously selected, and operations properly and systematically carried out for its de-
velopment, there would be far less chance of unsatisfactory results than are met with
by merchants and manufacturers in the usual routine of their business. As this im-
portant invention must beneficially interest the landowners, mine proprietors, mer-
chants, and miners, we opine it will meet with immediate adoption.—Mining Journal.

TO IRON AND COAL MASTERS, MINING AND QUARRY COMPANIES, &c.
IMPROVED BLACK VARNISH.
FOR PREVENTING IRON FROM RUST, AND WOOD FROM DECAY.

ABRILLIANT JET BLACK, SUPERIOR TO PAINT
IN APPEARANCE, dries in less time, contains preservative qualities of the best
description, and is economical in its use; one gallon, at 1s., is equal to 14 lbs. of paint,
which costs 4s. For COLLIERY HEAD GEARING, RAILWAY WAGONS, BOILERS, CASTINGS,
CANAL BOATS, &c., it is especially adapted. In casks containing 10, 15, and 20 cwt.
each. In quantities of 1 ton and upwards, price £11 per ton.

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GLOVER AND CO. have now on hand a really splendid painting sample of spirits of tur-
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tine, and quite inoffensive to smell. Price, 2s. per gallon, in 50-gallon casks.

PETROLEUM.
This oil gives a pure, white, soft, and brilliant light, easily regulated, and portable.
For works or public buildings, where gas is not desirable, the brilliancy and economy
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WASTE NO OIL.
STRONG IRON OIL CISTERNS.
Not liable to leak, and which economise space in the stores. From 600 gallons, 48 dia-
meter by 84 in height, price £10 10s., down to 10 gallons, 15 diameter by 21 in height,
price 15s., WITH EVERY VARIETY OF SIZE AND PRICE BETWEEN.

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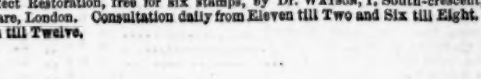
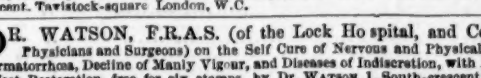
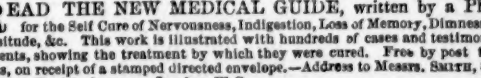
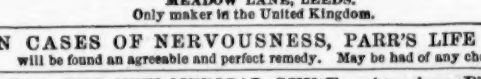
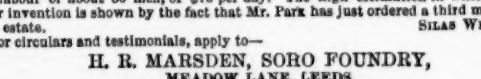
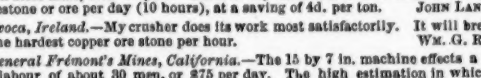
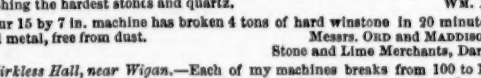
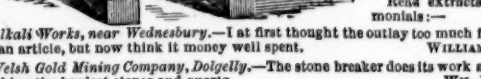
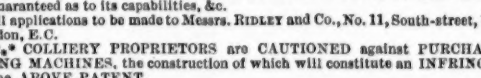
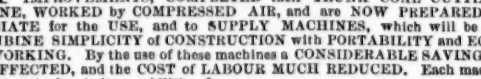
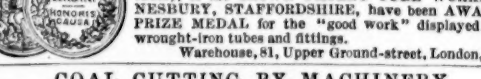
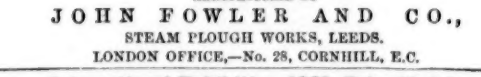
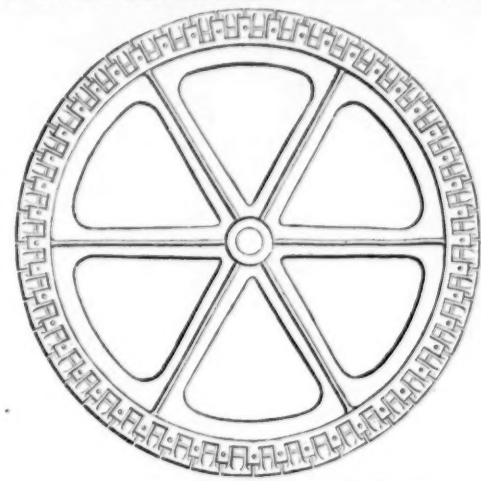
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Royal Agricultural Society's Meeting, Newcastle,
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JOHN FOWLER AND CO.'S PATENT CLIP PULLEY
FOR CONVEYING POWER TO A DISTANCE IN COLLIERIES, MINES, &c.,
OR ANY PLACE WHERE WIRE ROPE IS USED FOR TRACTION PURPOSES.



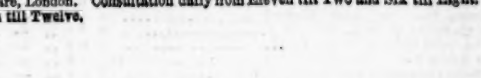
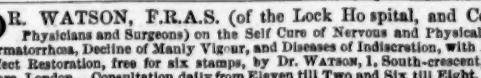
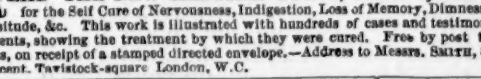
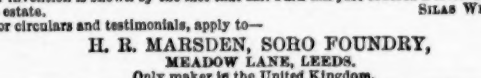
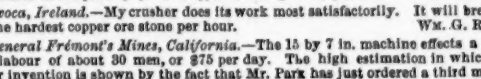
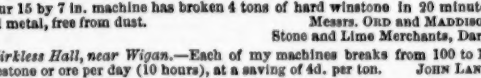
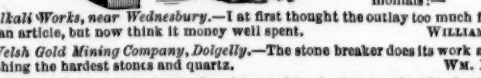
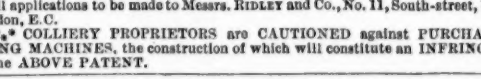
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JOHN FOWLER AND CO.,
STEAM PLOUGH WORKS, LEEDS.
LONDON OFFICE, No. 28, CORNHILL, E.C.

International Exhibition, 1862—Prize Medal.

JAMES RUSSELL AND SONS
(the original patentees and first makers of wrought-iron
tubes), of the CROWN PATENT TUBE WORKS, WED-
NESBURY, STAFFORDSHIRE, have been AWARDED A
PRIZE MEDAL for the "good work" displayed in their
wrought-iron tubes and fittings.

Warehouse, 51, Upper Ground-street, London, S.

COAL CUTTING BY MACHINERY.



MESSRS. RIDLEY AND CO. have, by recently PATENTED
IMPROVEMENTS, COMPLETED their TRUNK COAL CUTTING MA-
CHINE, WORKED BY COMPRESSED AIR, and are NOW PREPARED TO NE-
GOCIATE FOR THE USE, and TO SUPPLY MACHINES, which will be found to
COMBINE SIMPLICITY OF CONSTRUCTION WITH PORTABILITY AND ECONOMY
IN WORKING. By the use of these machines a CONSIDERABLE SAVING OF COAL
IS EFFECTED, and the COST OF LABOUR MUCH REDUCED. Each machine will
be guaranteed as to its capabilities, &c.

All applications to be made to Messrs. RIDLEY AND CO., No. 11, South-street, Finsbury
London, E.C.

* * * COLLIERY PROPRIETORS are CAUTIONED against PURCHASING OR
USING MACHINES, the construction of which will constitute an INFRINGEMENT
OF THE ABOVE PATENT.

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE.

FOR REDUCING TO
SMALL FRAGMENTS
ROCKS, ORES,
AND MINERALS OF
EVERY KIND.

It is rapidly making its
way to all parts of the
globe, being now in pro-
fitable use in California,
Washington, Lake Superior,
Australia, Cuba, Chili,
Brazil, and throughout the
United States & England.

Read extracts of testi-
monials:—

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple
an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably,
crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard winstone in 30 minutes, for fine
road metal, free from dust. Messrs. ORR and MADDOCK,
Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of
limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCASTER.

THE MINING SHARE LIST

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
1800	Alderley Edge (cop.), Cheshire [L.]	10 0 0	—	—	—	—
4000	Bodford United (cop.), Tavistock [L.]	2 6 8	—	2 1/2 3/4	—	—
1248	Boscawell (tin, copper), St. Just [L.]	4 15 0	—	—	—	—
200	Botalong (tin, copper), St. Just [L.]	91 5 0	—	—	—	—
8000	Brotford (lead), Cardigan [L.]	2 7 8	—	—	—	—
916	Cargill (silver-lead), Newlyn [L.]	15 5 7	35	40 42	—	—
1800	Carn Brea (copper, tin), Illogan [L.]	15 5 7	—	—	—	—
2800	Clifford Amalgamated (cop.), Gwent [L.]	30 0 0	34	33 34	—	—
12000	Copper Miners of England [L.]	25 0 0	—	—	—	—
4000	Ditto (stock)	100 0 0	—	—	—	—
187	Cwm Erwin (lead), Cardiganshire [L.]	7 10 0	—	—	—	—
280	Cwmystwith (lead), Cardiganshire [L.]	60 0 0	—	—	—	—
280	Darwent Mines (sil.-lead), Durham [L.]	300 0 0	—	—	—	—
1024	Devon Gt. Con. (cop.), Tavistock [S.E.]	1 0 0	280	—	—	—
358	Dolcoath (copper, tin), Camborne [L.]	128 17 6	—	—	—	—
12800	Drake Walls (tin, copper), Calstock [L.]	3 1 0	1 1/4	1 1/4 1 1/4	—	—
512	East Basset (cop.), Redruth [S.E.]	39 10 0	67	68 68	—	—
614	East Caradon (copper), St. Cleer [S.E.]	2 14 5	—	2 1/2 2 1/2 2 1/2	—	—
300	Darren (lead), Cardiganshire [L.]	24 0 0	—	—	—	—
128	East Pool (tin, copper), Pool, Illogan [L.]	24 0 0	—	—	—	—
1906	East Wheal Lovell (tin), Wendron [L.]	2 13 6	15	14 1/2 15 1/2	—	—
2800	Foxdale (lead) Isle of Man [L.]	25 0 0	—	—	—	—
8000	Frank Mills (lead), Christow [L.]	3 18 8	—	—	—	—
12500	Great Laxey (lead), Isle of Man [L.]	4 0 0	17	16 17	—	—
178	Great Wheal Fortune (tin), Breage [L.]	18 6 0	30	29 30	—	—
119	Great Wh. Vor (tin, cop.), Helston [S.E.]	40 0 0	—	—	—	—
1024	Herodfoot (sil.-lead), near Liskeard [S.E.]	8 10 0	—	—	—	—
400	Lisborne (lead), Cardiganshire, Wales [L.]	18 15 0	—	—	—	—
9000	Marke Valley (copper), Cardigan [L.]	4 10 8	5	5 5 1/2	—	—
1800	Mineral Mining Co. [L.] (id.), Wrexham [L.]	25 0 0	—	—	—	—
30000	Mineral Mining Co. of Ireland (cop., lead, coal) [L.]	7 0 0	—	—	—	—
40000	Mynydd (iron ore) [L.] (S.E.)	3 10 0	—	—	—	—
250	Nanty Mines (lead), Montgomery [L.]	20 0 0	—	—	—	—
6000	New Birch Tor and Vitrifer Con. (tin), [L.]	1 6 0	—	2 1/2 2 1/2	—	—
2926	North Treaskery (copper), St. Agnes [L.]	1 9 0	—	2 1/2 2 1/2	—	—
4000	Par Consols (cop.), St. Biazey [S.E.]	1 2 6	—	—	—	—
292	Parya Mines (copper), Anglesey [L.]	50 0 0	—	—	—	—
1772	Polberro (tin), St. Agnes [L.]	16 0 0	—	—	—	—
612	Polbreen (tin), St. Agnes [L.]	8 0 0	—	—	—	—
112	Providence (tin), Uny Lelant [S.E.]	10 7 4	40	40 41	—	—
6000	Rosewall Hill and Hanson United [L.]	2 18 0	—	2 1/2 3 1/2	—	—
612	South Caradon (cop.), St. Cleer [S.E.]	1 5 0	470	450 470	—	—
612	South Tolgus (cop.), Redruth, Cornwall [L.]	0 0 0	—	—	—	—
400	S. Wh. Frances (cop.), Illogan [S.E.]	18 18 0	45	40 45	—	—
4000	St. Ives United (tin), Redruth [L.]	14 0 0	—	—	—	—
940	St. Ives Consols (tin), St. Ives [L.]	8 0 0	—	—	—	—
6000	Tincroft (cop., tin), Pool, Illogan [S.E.]	9 0 0	17 1/2	17 1/2 17 1/2	—	—
4200	Vigra and Clogau (copper) [L.]	4 0 0	—	—	—	—
6000	West Basset (copper), Illogan [S.E.]	1 10 0	—	—	—	—
3000	W. Chiverton (id.), Penrynabuloe [S.E.]	—	67 1/2	65 67 1/2	—	—
286	West Damsel (copper), Gwennap [L.]	38 10 0	—	—	—	—
400	W. Wh. Seton (cop.), Camborne [S.E.]	47 10 0	215	210 220	—	—
612	Wheal Basset (copper), St. Agnes [L.]	2 6 0	90	89 91	—	—
1000	Wheal Basset and Grylls (tin) [L.]	7 0 0	—	—	—	—
612	Wheal Jane (silver-lead), Kea [L.]	3 10 0	—	—	—	—
4295	Wheal Kitty (tin), St. Agnes [L.]	4 6 0	—	—	—	—
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	2 0 0	12	11 12	—	—
896	Wh. Margaret (tin), Uny Lelant [S.E.]	9 17 6	9	8 9	—	—
1024	Wh. Mary Ann (tin), Menheniot [S.E.]	8 0 0	15	14 15	—	—
106	Wheal Mary (tin), Lelant [L.]	36 2 6	—	—	—	—
80	Wheal Owien (tin), St. Just, Cornwall [L.]	70 0 0	—	—	—	—
280	Wheal Seton (tin, copper), Camborne [L.]	58 10 0	—	227 1/2 227 1/2	—	—
1040	Wh. Treavay (sil.-id.), Liskeard [S.E.]	5 17 0	30	19 20	—	—
2044	Wheal Tremayne (tin), Gwinnar [L.]	6 11 3	—	—	—	—
7060	Wicklow (copper) [L.]	2 10 0	—	—	—	—

(* Dividends paid every two months. † Dividends paid every three months.)

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
240	Roseann (tin), St. Just [L.]	30 10 0	—	—	—	—
3000	Chiverton (lead), Penrynabuloe [S.E.]	5 0 0	—	8 1/2 7 1/2 8 1/2	—	—
286	Condurow (cop., tin), Camborne [L.]	45 0 0	—	—	—	—
2450	Cook's Kitchen (copper), Illogan [L.]	17 15 0	20	16 17 1/2	—	—
1024	Copper Hill (copper), Redruth [L.]	12 0 0	12	—	—	—
1055	Craddock Moor (copper), St. Cleer [L.]	8 0 0	—	—	—	—
4076	Devon and Cornwall (cop.), Tavistock [L.]	6 8 0	—	—	—	—
3000	Drygwyn (lead), Wales [L.]	12 6 0	—	—	—	—
940	Fowey Consols (copper), Tywardreath [L.]	4 0 0	—	—	—	—
6000	Great South Tolgus, Redruth [L.]	0 14 8	3	2 1/2 2 1/2	—	—
10240	Gunn's Lake (Clitters' Adit) [L.]	0 2 0	—	—	—	—
160	Levant (copper, tin), St. Just [L.]	2 10 0	—	—	—	—
840	Mount Pleasant (lead), Mold [L.]	4 0 0	—	—	—	—
5000	Orehead (lead), Flintshire [L.]	0 8 0	—	—	—	—
8000	South Exmouth (lead), Christow [L.]	1 10 0	—	—	—	—
280	Sparrow Moor (tin, copper), St. Just [L.]	22 10 0	—	—	—	—
873	Trelon Consols (tin), St. Ives [L.]	13 10 0	—	—	—	—
1000	Trumpet Consols (tin), near Helston [L.]	11 10 0	10	—	—	—
12000	Twelve Apostles Amal. (id.), Wrexham [L.]	1 0 0	—	—	—	—
1024	Wendron Consols (tin), Wendron [L.]	18 3 10	—	—	—	—
600	West Burton Hill (lead), Yorkshire [L.]	80 0 0	—	—	—	—
1024	West Caradon (cop.), Liskeard [S.E.]	5 0 0	—	—	—	—
1024	Wheal Friendship (copper), Devon [L.]	20 0 0	—	—	—	—
1024	Wheal Grylls (tin), Penrynabuloe [S.E.]	3 14 0	—	—	—	—
6400	West Fowey Consols (tin and copper) [L.]	7 10 0	—	—	—	—

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
20000	Australian (cop.), S. Australia [S.E.]	7 7 6	—	—	—	—
2484	Burra Burra (cop.), South Australia [L.]	5 0 0	70	—	—	—
8000	Central American (silver) [L.]	5 0 0	—	—	—	—
15000	Cape Copper Mining [L.] [S.E.]	7 0 0	11	10 11	—	—
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	34	33 34	—	—
100000	Don Pedro No. Del Rey [L.] [S.E.]	0 10 0	—	—	—	—
70000	English and Australian [S.E.]	5 0 0	—	—	—	—
18000	East Indian Coal, Calcutta [L.]	10 0 0	—	—	—	—
25000	Fortuna (lead), Spain [L.]	2 0 0	—	3 1/2 4	—	—
28000	Gen. Mining Adm., Nova Scotia [L.]	20 0 0	22	20 22	—	—
80000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1 1/2	1 1/2	—	—
18000	Linares (id.), Pozo Ancho, Spain [S.E.]	3 0 0	7	—	—	—
10000	Lusitania (of Portugal) [S.E.]	2 0 0	—	—	—	—
10000	Pontgibaud (sil.-lead), France [S.E.]	120 0 0	7 9	—	—	—
97500	Port Phillip (gold), Clunes [S.E.]	1 0 0	1 1/2	—	—	—
11000	St. John del Rey [L.] [S.E.]	15 0 0	33	35 37	—	—
1174	Unit. Mexican (sil.), Mexico [S.E.]	28 0 0	—	8 1/2 8 1/2	—	—
10000	Vancouver (cop.) [L.]	5 0 0	—	—	—	—
20000	West Canada Mining Company [L.]	1 0 0	—	—	—	—
45000	Yudanamutana (cop.), S. A. [L.] [S.E.]	3 0 0	2 1/2	2 1/2 2 1/2	—	—

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
10000	Altan and Quenagen Unl. (cop.) [L.] [S.E.]	4 10 0	—	—	—	—
10000	Copago Mining Company, Chili [S.E.]	16 0 0	—	—	—	—
10000	Gt. Barrier Land, Min. Co., N. Ze. [L.] [S.E.]	10 0 0	—	—	—	—
10815	Marquitta and New Granada [S.E.]	1 0 0	—	—	—	—

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
25000	Aiamillo (lead), Spain [L.]	0 12 6	1 1/2	—	—	—
100000	Anglo-Brazilian (gold) [L.] [S.E.]	0 5 0	—	—	—	—
20000	Bear's Tin Streaming Company [L.]	0 17 6	—	—	—	—
25000	Capula (silver), Mexico [L.] [S.E.]	1 0 0	—	—	—	—
17000	Central Italian (copper) [L.] [S.E.]	0 6 0	—	—	—	—
10000	Copago Smelting [L.]	10 0 0	—	—	—	—
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	—	—	—
50000	East del Rey (gold), Brazil [L.] [S.E.]	—	—	—	—	—
20000	East Kongari, Native Silver Mining Co. of Norway [L.]	1 12 0	—	—	—	—
15000	El Chico Mining and Reduction (silver) [L.]	3 0 0	—	—	—	—
20000	Elbe Colliery Company, Bohemia [L.]	1 0 0	—	—	—	—
30000	Ellerslie and Bartow (copper), Jamaica [L.]	0 18 0	—	—	—	—
8000	Engilsh and Canadian Mining Company [L.]	5 0 0	—	—	—	—
40000	Fortune (copper), West Australia [L.]	2 0 0	—	—	—	—
50000	Frontino and Bolivia (gold), New Granada [L.] [S.E.]	0 10 0	—	—	—	—
80000	Great Northern (copper), South Australia [L.] [S.E.]	—	—	—	—	—
24000	Hindustan (copper), Bengal [L.] [S.E.]	1 10 0	—	—	—	—
4000	Hope Silver-Lead and Copper Mining Co. [L.]	25 0 0	—	—	—	—
10000	Karbita Colliery Company [L.]	1 0 0	—	—	—	—
30000	Lagunas (sulphur, copper), Portugal [L.]	1 0 0	—	—	—	—
100000	Montes Aurores (gold), Brazil [L.] [S.E.]	2 0 0	—	—	—	—
2000	New Burra Burra (copper) (Australia)	5 0 0	—	—	—	—
10000	New Grand Duchy of Baden (silver-lead), near Freiburg [L.]	1 0 0	—	—	—	—
80000	North Rhine Copper of South Australia [L.] [S.E.]	0 17 6	—	—	—	—
50000	Nova Scotia (lead and gold) [L.] [S.E.]	1 0 0	—	—	—	—
18000	Pacheca Silver Mining Company, Mexico [L.]	1 0 0	—	—	—	—
80000	Panellito (copper) [L.]	1 0 0	—	—	—	—
4000	Peel River Land and Mineral [Limited]	100 0 0	—	—	—	—
23000	Quebrada (copper), Venezuela [L.] [S.E.]	4 10 0	—	—	—	—
10000	San Roque (lead), Spain [L.]	5 0 0	—	—	—	—
90000	Santa Barbara (gold), Brazil [L.] [S.E.]	0 12 6	1 1/2	—	—	—
120000	Scottish Australian Mining Company [L.] [S.E.]	0 17 6	—	—	—	—
18000	South Europe Mining Company, Spain [L.] [S.E.]	2 0 0	—	—	—	—
12000	Tepita Colliery Co., Bohemia [L.]	3 0 0	—	—	—	—
8000	Valgodemard Mining Company [L.]	8 0 0	—	—	—	—
50000	Vallanueva (gold), Italy [L.] [S.E.]	0 7 6	—	—	—	—
45000	Victor Emanuel (copper), Italy [L.]	1 0 0	—	—	—	—
1000	Western Africa Malachite (copper) [L.]	110 0 0	—	—	—	—
12000	Wheal Ellen (copper), South Australia [L.]	5 0 0	—	—	—	—
50000	Working (copper), South Australia [L.] [S.E.]	1 9 9	1	1 1/2	—	—

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
700	Aberdovey (sil.-lead), Merioneth [L.]	4 0 0	—	—	—
6000	Bagtor (tin) [L.]	2 0 0	—	—	—
4000	Bedford Cons. (cop.), Tavistock [L.]	2 0 0	—	—	—
3200	Bodol Aur (lead), Holywell [L.]	0 12 0	—	—	—
2000	Berehaven (copper), Ireland [L.]	1 0 0	—	—	—
400	Billins [L.] [S.E.] [200 £25 pd., 200 £30 pd.]	—	—	—	—
6000	Boscawen (tin), Kenwyn [L.]	2 10 0	—	—	—
2280	Boscawen (tin, cop.), St. Austell [L.]	7 10 0	—	—	—
5000	Bottle Hill (tin) Plymouth [L.]	1 8 6	—	—	—
3000	Bromlow (id.), Ministry, Salop [L.]	1 0 0	—	—	—
300	Brynford Hall (lead), Flint [L.]	3 0 0	—	—	—
500	Bryn Gwlog (lead), Flint [L.]	9 0 0	—	—	—
1832	Bryntall (lead), Llanidloes [L.]	8 7 6	—	—	—
4380	Buller & Bassett, (cop.) Redruth [L.]	4 6 6	—	—	—
19000	Calstock Consols (cop.), Calist. [L.]	1 17 6	—	—	—
918	Calvadnock (tin), Wendron [L.]	24 3 6	—	—	—
6000	Cambrion Consols (copper) [L.]	18 10 0	—	—	—
4600	Camborne Veal (W. Wh. Seton) [L.]	1 10 0	—	—	—
75000	Cambrian Consolidated (id.) [L.] [£2] 1 0 0	—	—	—	—
8000	Cape Cornwall (cop.) [L.] [£2] 10 15 0	—	—	—	—
12000	Caradon & Phenix Cons. (cop.) [L.] 0 10 0	—	—	—	—
914	Caradon Cons. (cop.), St. Cleer [L.] 28 16 6	—	—	—	—
10000	Caradon Vale (copper) [L.]	—	—	—	—
6000	Caradon Unit. (cop.), St. Neots [L.] 1 0 0	—	—	—	—
2580	Carminthen United (lead) [L.]	8 0 0	—	—	—
2000	Carroll (tin and cop.), Zennor [L.] 1 0 0	—	—	—	—
2000	Carri Cambo (cop.), Camb. [L.] 1 0 0	—	—	—	—
3000	Carra Wylian (tin and cop.) [L.] 2 6 0	—	—	—	—
3948	Carnyorth (tin), St. Just [L.] 4 10 0	—	—	—	—
30000	Caryarth [£200 £2½ pd., 16800 £1 pd.]	—	—	—	—
10000	Castlaward, Ireland [L.]	1 0 0	—	—	—
2000	Cefn Cileon (id.), Flint [L.] [£2] 2 7 0	—	—	—	—
800	Cefn Cwm Brywyo (lead) [L.]	4 0 0	—	—	—
3000	Central Grylla (tin) [L.] [£3] 2 10 0	—	—	—	—
2500	Central Minera (lead) [L.] [£2] 2 10 0	—	—	—	—
6000	Charlotteville, Perranrathos [L.] 4 17 8	—	—	—	—
5000	Chertown Cons. (cop.) [L.]	0 0 0	—	—	—
3000	Chiverton Moor (lead) [L.]	3 0 0	—	—	—
3000	Chiverton Valley (lead) [L.]	3 0 0	—	—	—
1000	Chiverton Wheal Hoop (lead) [L.]	5 0 0	—	—	—
4000	Clara Unit., Pontewydd [L.] [£2] 2 0 0	—	—	—	—
1024	Cleer's Hill (tin), St. Stephen's [L.] 0 2 0	—	—	—	—
787	Cliffah & Wentworth (tin, cop.) [L.] 32 10 0	—	—	—	—
3000	Cloance Wood [L.] [£2] 1 10 0	—	—	—	—
3565	Cod Mawr Foot (lead) [L.] 5 0 0	—	—	—	—
16000	Colarata & Bodel [L.] [£5000 pd., 10700 £s. pd.]	—	—	—	—
60000	Connorral (cop., phen.) [L.]	—	—	—	—
6000	Cornish Clay and Tin [L.] 1 0 0	—	—	—	—
861	Corn (copper), Camborne [L.] 33 15 0	—	—	—	—
30000	Crenner and Wh. Abraham [L.] 2 10 0	—	—	—	—
12000	Crelake (cop.), Tavistock [L.] 2 13 0	—	—	—	—
3000	Crowlwm (lead), Llanidloes [L.] 1 10 0	—	—	—	—
6000	Cuddra (cop., tin), St. Austell [L.] 4 1 0	—	—	—	—
85000	Dale (lead), North Stafford [L.]	1 0 0	—	—	—
200	Darren (lead), North Stafford [L.] 32 0 0	—	—	—	—
3000	Deep Level, North Stafford [L.] 8 0 0	—	—	—	—
672	Ding Dong (tin), Guisborough [L.] 44 10 0	—	—	—	—
30000	Dolfrwynog (gold) [L.] [£1] 0 15 0	—	—	—	—
1000	Durio (tin), Lelant [L.] 8 3 0	—	—	—	—
1000	Eaglebrook (lead) [L.] [£20] 17 2 0	—	—	—	—
1000	East Bassett and Grylla (tin) [L.] 2 0 0	—	—	—	—
6000	E. Bottle Hill (tin), Plympton [L.] 0 3 6	—	—	—	—
50000	East Cambrian (gold) [L.] [£1] 0 15 0	—	—	—	—
4000	East Carn Brea (cop.) Redruth [L.] 3 15 0	—	—	—	—
50000	E. Cloghan (gold), Merioneth [L.] 0 6 0	—	—	—	—
4000	East Devon Gt. Consols (cop.) [L.] 1 14 0	—	—	—	—
2048	E. Falmouth (s.-id.), Kenwyn [L.] 5 0 6	—	—	—	—
6000	E. Grenville (cop.), Camborne [L.] 2 5 0	—	—	—	—
6000	E. Gt. Work (tin), Breage [L.] [£5] 2 10 0	—	—	—	—
4000	E. Gunnis Lake & S. Bedf. (cop.) [L.] 7 15 6	—	—	—	—
6145	E. Jane (sil.-id.), Cardinham [L.] 7 0 0	—	—	—	—
1024	E. Margaret (tin), Uney Lelant [L.] 19 10 0	—	—	—	—
5000	E. Fotheringhay (tin), Uney Lelant [L.] 40 64 pd.	—	—	—	—
3856	E. Providence (tin), Uney Lelant [L.] 4 4 5	—	—	—	—
5000	E. Rosewarne (cop., tin), Gwinn [L.] 2 15 0	—	—	—	—
5610	East Seton (cop.), Camborne [L.] 10 10 0	—	—	—	—
256	East Tolgus (copper), Redruth [L.] 88 0 0	—	—	—	—
1024	E. Treaskerby (cop.), Redruth [L.] 8 10 0	—	—	—	—
1190	E. Wheal Agar (cop.), St. Cleer [L.] 11 17 0	—	—	—	—
1300	E. Wheal Ellen (cop.), St. Agnes [L.] 0 7 6	—	—	—	—
6000	E. Wh. Fortune (tin), Sitchey [L.] 7 0 0	—	—	—	—
6000	East Wheal Grylls (tin, cop.) [L.] 2 9 6	—	—	—	—
5000	E. Wh. Russell, Tavia [L.] [S.E.] 9 0 6	—	—	—	—
5000	East Wheal Vor (tin and cop.) [L.] 5 0 0	—	—	—	—
2000	Erwelin (lead), [L.] [£2] 1 0 0	—	—	—	—
6144	Eather Und. (tin), Cardinham [L.] 0 2 10	—	—	—	—
6000	Fortescue Cons. (sil.), Endellion [L.] 0 12 6	—	—	—	—
6000	Furze Hill Wood Cons., Buckle [L.] 1 5 6	—	—	—	—
1026	Garden (tin), Morvah [L.]	—	—	—	—
4000	Garleida Und. (tin), Wendron [L.] 4 7 6	—	—	—	—
1000	Garrow (lead), Flint [L.] 5 14 6	—	—	—	—
4000	Gawton (copper), Tavistock [L.] 2 9 6	—	—	—	—
6000	Gen. Min. Co. for Irel. (cop.) [L.] 4 0 0	—	—	—	—
30000	Glasgow Caradon Cons. (cop.) [L.] 1 0 0	—	—	—	—
5700	Goginan (sil.-id.) [L.] [1900 £12½, 3800 30s.]	—	—	—	—
2000	Golch Hill (lead), Flintshire [L.] 1 0 0	—	—	—	—
6144	Gonamena (copper), St. Cleer [L.] 4 7 0	—	—	—	—
2000	Gonson (copper), St. Neot's [L.] 1 0 0	—	—	—	—
3000	Gramb. & St. Aub. (cop.) [L.] [S.E.] 2 0 0	—	—	—	—
5000	Great Brigal (cop.), Cam. [L.] 6 7 6	—	—	—	—
4000	Great Caradon (cop.), St. Ive [L.] 2 12 0	—	—	—	—
10000	Gt. Dev. & Bed. [L.] [£2800 5s. fully pd.]	—	—	—	—
6000	Great E. Laxey (lead) [L.] [£3] 1 10 0	—	—	—	—
3000	Gt. East Lovell (tin), Helston [L.] 1 0 0	—	—	—	—
5000	Great North Downs (copper) [L.] 3 18 0	—	—	—	—
6000	Gt. Retallack (sil.-id., blende) [L.] 2 6 6	—	—	—	—
6000	Great S. Chiverton (sil.-lead) [L.] 0 10 0	—	—	—	—
6000	Great Tregun (gold, cop.) [L.] 2 9 6	—	—	—	—
3000	Great West Chiverton (lead) [L.] 1 0 0	—	—	—	—
3730	Great Wheal Badtern (tin) [L.] 6 16 0	—	—	—	—
2048	Grylla Consols (tin) [L.] 1 5 0	—	—	—	—
4000	Grylla Wheal Florence (tin) [L.]	—	—	—	—
6000	Gt. Wh. Busy (cop., tin), Ken. [L.] 13 14 6	—	—	—	—
3072	Gt. Wh. Grylla (tin, copper) [L.]	—	—	—	—
4910	Gurlyon (cop., tin), St. Erith [L.] 2 10 5	—	—	—	—
6088	Gwyrday Park Cons., Llanrwst [L.] 1 0 0	—	—	—	—
6000	Haarwood (id.), Durban [L.] 0 5 6	—	—	—	—
5000	Havan (id.), Cardigan [L.] [£2] 4 0 0	—	—	—	—
5000	Hazel Grove (sil.-id.) [L.] [£1] 0 10 0	—	—	—	—
7219	Hawkmoor (tin, cop.) Calstock [L.] 8 6 0	—	—	—	—
5000	Hendre (lead), Flint [L.] [£2] 2 0 0	—	—	—	—
6000	Hington Down (cop.) [L.] [S.E.] 10 16 0	—	—	—	—
6000	Hilgon (tin and copper) [L.] 0 12 6	—	—	—	—
9000	Kelly Bray (id.), Callington [L.] 5 6 6	—	—	—	—
6000	Kewick (lead), Penryn [L.] 6 6 6	—	—	—	—
36	Kilmorey (lead) [L.] 25 0 0	—	—	—	—
6000	Lady Bertha (cop.) [L.] [S.E.] 2 18 6	—	—	—	—
3000	Lanivet (tin), [L.] [£2] 10 10 0	—	—	—	—
1019	Leeds & St. Aubyn (tin, cop.) [L.] 17 6 4	—	—	—	—
963	Lelant Cons. (tin), Uney Lelant [L.] 35 0 0	—	—	—	—
240	Llango (id.), Glamor. [L.] [£25] 30 0 0	—	—	—	—
4000	Llanrwst Vardre (gold), [L.] [£2] 4 10 0	—	—	—	—
3000	Long Rake (id.), W. [L.] 4 0 0	—	—	—	—
2000	Lower Park (id.), Dunbligh [L.] 3 11 0	—	—	—	—
6000	Maudlin (copper), Lostwithial [L.] 4 2 0	—	—	—	—
4480	Merilyn (lead), Flint [L.] 4 1 6	—	—	—	—
3000	Minera Western Boundary [L.] [£1] 0 2 6	—	—	—	—
3000	Mineral Bottom (lead) [L.] 3 0 0	—	—	—	—
5000	Molland (cop.), S. Moulton [L.] 3 9 6	—	—	—	—
1024	Nagles (tin, copper), Kew [L.] 18 0 0	—	—	—	—
5000	Nantes and Penrhyn [L.] 4 0 0	—	—	—	—
6000	Nanton (tin), [L.] 0 5 0	—	—	—	—
612	Nant Minera (lead), [L.] [£20] 6 14 0	—	—	—	—
6000	Nant-y-lago (id.), Merioneth [L.] 37 16 0	—	—	—	—
6000	New East Birch Tor (tin) [L.] 0 2 6	—	—	—	—
10000	New Concord (sil.-id.) [L.] [£2] 1 0 0	—	—	—	—
12000	New Cornish [8000 £1 paid, 4000 7s. 6d. paid] [L.]	—	—	—	—
6400	N. Crow Hill (id.), St. Stephen [L.] 2 11 6	—	—	—	—
6514	N. E. Russell (cop.), Tavistock [L.] 0 8 0	—	—	—	—
6000	Nether Haven (lead), [L.]	—	—	—	—
6000	New Bend (tin, cop.), Breage [L.] 2 3 6	—	—	—	—
6400	New Pembroke (tin and cop.) [L.] 0 9 0	—	—	—	—
1024	New Rosewarne (cop.), Gwinn [L.] 2 0 0	—	—	—	—
6000	New S. Caradon (cop.), St. Cleer [L.] 0 16 6	—	—	—	—
5969	New Treleigh (cop.), Redruth [L.] 3 3 0	—	—	—	—
960	New Trevenen (tin), Wendron [L.] 6 7 0	—	—	—	—
47	Newtownards Min. Co., Down [L.] 50 0 0	—	—	—	—
1024	New Wh. Grylla (tin), Wendron [L.] 7 0 0	—	—	—	—
1024	New Wh. Grylla (tin and cop.) [L.] 2 6 6	—	—	—	—
15000	New Wheal Martha (cop.) [L.] 1 0 0	—	—	—	—
4096	New Wh. Rose (id. and blende) [L.] 0 5 0	—	—	—	—
400	New Wh. Seton (cop.), Camb. [L.] 21 15 0	—	—	—	—
6000	New Wh. Vor & Metal Und. (tin) [L.] 0 2 6	—	—	—	—
6000	North Chiverton (lead) [L.]	—	—	—	—
16000	North Devon (sil.-id.) [L.] [£1] 0 13 0	—	—	—	—
5000	N. Dolcoath (cop.), Camborne [L.] 3 1 6	—	—	—	—
5000	North Franches (cop.) [L.] 12 16 0	—	—	—	—
2500	Nth. Golch Hill (lead), Flint [L.] 0 10 0	—	—	—	—
1366	N. Grambler (cop.), Redruth [L.] 3 16 0	—	—	—	—
6000	N. Gt. Work, Breage [L.] [£3] 2 7 0	—	—	—	—
16000	N. Hallenbaggie [5000 £1pd., 5000 8s. 6d. pd.] [L.]	—	—	—	—
6000	North Jane (tin, silver-lead) [L.] 2 4 6	—	—	—	—
5000	N. Levant (tin, cop.), St. Just [L.] 8 13 0	—	—	—	—
10000	N. Minera (id.) [L.] [£1 5d. pd., 5000 10s. pd.]	—	—	—	—
4000	N. Phenix (copper), Linkin [L.] 1 13 0	—	—	—	—
6400	N. Pool (tin & cop.), Illogan [L.] 1 13 0	—	—	—	—
7100	N. Roseark (cop.), Camborne [L.] 31 5 0	—	—	—	—
6144	North Rosewarne (copper) [L.] 1 0 0	—	—	—	—
2000	N. Shepherds (sil.-id.), Newlyn [L.] 2 0 0	—	—	—	—
6000	N. Wh. Bassett (cop., tin) [L.] [S.E.] 3 17 0	—	—	—	—
5610	North Wh. Crofty (cop.) [L.] [S.E.] 2 8 0	—	—	—	—
10000	N. Wh. Robert, Samp. Spine [L.] 3 7 11	—	—	—	—
4096	Okel Tor (cop.), Calstock [L.] [£25] 2 10 0	—	—	—	—
1000	Pant-y-Frydw (lead) [L.] 5 11 6	—	—	—	—
8465	Pedn-an-drea (tin), Redruth [L.] 3 19 0	—	—	—	—
5000	Pendons Cons. (cop.), St. Just [L.] 4 7 0	—	—	—	—
5000	Penhalls (tin), St. Agnes [L.] 2 13 0	—	—	—	—
512	Penhalvor Moor (silver-lead) [L.] 3 0 0	—	—	—	—
6000	Penrith (sil.-id.), Merion. [L.] 2 7 0	—	—	—	—
2000	Pentryn Lagan (lead), [L.] [£30] 22 10 0	—	—	—	—
6000	Poldig (lead), (tin), Wendron [L.] 1 18 0	—	—	—	—
10000	Prince Arthur Cons. [L.] 0 5 0	—	—	—	—
12800	Prince of Wales (tin), Calstock [L.] 0 5 0	—	—	—	—
6000	Princes of Wales (tin), Saneered [L.] 0 5 0	—	—	—	—
8000	Prosper Unit. (tin, cop.), St. Hilary [L.] 7 1 6	—	—	—	—
10156	Redmoor (cop., tin), Callington [L.] 0 14 0	—	—	—	—
612	Retanna Hill (tin), Wendron [L.] 2 17 6	—	—	—	—
4096	Rilton E. Wh. Rose (sil.-id.) [L.]	—	—	—	—
6000	Roborough Down (tin) [L.] [£2] 1 0 0	—	—	—	—
5000	Rodriguez (tin), Cornwall [L.] 0 8 0	—	—	—	—
4026	Rosewarne Consols (copper) [L.] 3 8 0	—	—	—	—
3849	Rosewarne United (cop., tin) [L.] 3 8 0	—	—	—	—
6000	Roseark (copper), Camborne [L.] 0 10 0	—	—	—	—